SUBCHAPTER 2B - SURFACE WATER AND WETLAND STANDARDS

SECTION .0100 - PROCEDURES FOR ASSIGNMENT OF WATER QUALITY STANDARDS

15A NCAC 02B .0101 GENERAL PROCEDURES

(a) The rules contained in Sections .0100, .0200 and .0300 of this Subchapter which pertain to the series of classifications and water quality standards shall be known as the "Classifications and Water Quality Standards Applicable to the Surface Waters and Wetlands of North Carolina."

(b) The Environmental Management Commission, prior to classifying and assigning standards of water quality to any waters of the state, shall proceed as follows:

(1) The Commission, or its designee, shall determine waters to be studied for the purpose of classification and assignment of water quality standards on the basis of user requests, petitions, or the identification of existing or attainable water uses, as defined by 15A NCAC 2B .0202, not presently included in the water classification.

(2) After appropriate studies of the identified waters to obtain the data and information required for determining the proper classification of the waters or segments of water are completed, the Commission, or its designee, shall make a decision on whether to initiate proceedings to modify the classifications and water quality standards of identified waters. In the case of the Commission's designee deciding to initiate said proceedings, the designee shall inform the Commission of the decision prior to scheduling a public hearing.

(3) In the case of a petition for classification and assignment of water quality standards according to the requirements of General Statute 150B-20, the Director shall make a preliminary recommendation on the appropriate classifications and water quality standards of the identified waters on the basis of the study findings or information included in the petition supporting the classification and standards changes.

(4) The Commission shall make a decision on whether to grant or deny a petition in accordance with the provisions of General Statute 150B-20 based on the information included in the petition and the recommendation of the Director. The Commission may deny the petition and request that the Division study the appropriate classifications and water quality standards for the petitioned waters in accordance with Subparagraph (b)(2) of this Rule.

(5) The Director shall give due notice of such hearing or hearings in accordance with the requirements of General Statute 143-214.1 and G.S. 150B, and shall appoint a hearing officer(s) in consultation with the chairman of the Commission.

(6) The hearing officer(s) shall, as soon as practicable after the completion of the hearing, submit a complete report of the proceedings of the hearing to the Commission. The hearing officer(s) shall include in the report a transcript or summary of testimony presented at such public hearing, relevant exhibits, a summary of relevant information from the stream studies conducted by the technical staff of the Commission, and final recommendations as to classification of the designated waters and the standards of water quality and best management practices which should be applied to the classifications recommended.

(7) The Commission, after due consideration of the hearing records and the final recommendations of the hearing officer(s), shall adopt its final action with respect to the assignment of classifications, and any applicable standards or best management practices applicable to the waters under consideration. The Commission shall publish such action, together with the effective date for the application of the provisions of General Statute 143-215.1 and 143-215.2, as amended, as a part of the Commission's official rules.

(8) The final action of the Commission with respect to the assignment of classification with its accompanying standards and best management practices shall contain the Commission's conclusions relative to the various factors given in General Statute 143-214.1(d), and shall specifically include the class or classes to which such specifically designated waters in the watershed or watersheds shall be assigned on the basis of best usage in the interest of the public.

(c) Freshwater shall be assigned to one of the following classification:

(1) Class C: freshwaters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife. All freshwaters shall be classified to protect these uses at a minimum.

(2) Class B: freshwaters protected for primary recreation which includes swimming on a frequent or organized basis and all Class C uses.

(3) Class WS-I: waters protected as water supplies which are essentially in natural and undeveloped watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this

Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution are required. Suitable for all Class C uses.

(4) Class WS-II: waters protected as water supplies which are generally in predominantly undeveloped watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution shall be required. Suitable for all Class C uses.

(5) Class WS-III: waters protected as water supplies which are generally in low to moderately developed watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution shall be required. Suitable for all Class C uses.

(6) Class WS-IV: waters protected as water supplies which are generally in moderately to highly developed watersheds. Point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter. Local programs to control nonpoint sources and stormwater discharges of pollution shall be required; suitable for all Class C uses.

(7) Class WS-V: waters protected as water supplies which are generally upstream of and draining to Class WS-IV waters. No categorical restrictions on watershed development or treated wastewater discharges shall be required. However, the Commission or its designee may apply appropriate management requirements as deemed necessary for the protection of downstream receiving waters (15A NCAC 2B .0203); suitable for all Class C uses.

(8) Class WL: waters that meet the definition of wetlands found in 15A NCAC 2B .0202 except those designated as Class SWL.

(d) Tidal Salt Waters shall be assigned to one of the following:

(1) Class SC: saltwaters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife. All saltwaters shall be classified to protect these uses at a minimum.

(2) Class SB: saltwaters protected for primary recreation which includes swimming on a frequent or organized basis and all Class SC uses.

(3) Class SA: suitable for commercial shellfishing and all other tidal saltwater uses.

(4) Class SWL: waters that meet the definition of coastal wetlands as defined by 15A NCAC 2H .0205, and which are landward of the mean high water line, and wetlands contiguous to estuarine waters as defined by 15A NCAC 2H .0206.

(e) The following are supplemental classifications:

(1) Trout waters (Tr): freshwaters protected for natural trout propagation and survival of stocked trout.

(2) Swamp waters (Sw): waters which have low velocities and other natural characteristics which are different from adjacent streams.

(3) Nutrient Sensitive Waters (NSW): waters subject to growths of microscopic or macroscopic vegetation requiring limitations on nutrient inputs.

(4) Outstanding Resource Waters (ORW): unique and special waters of exceptional state or national recreational or ecological significance which require special protection to maintain existing uses.

(5) High Quality Waters (HQW): waters which are rated as excellent based on biological and physical/chemical characteristics through Division monitoring or special studies, native and special native trout waters (and their tributaries) designated by the Wildlife Resources Commission, primary nursery areas (PNA) designated by the Marine Fisheries Commission and other functional nursery areas designated by the Marine Fisheries Commission, all water supply watersheds which are either classified as WS-I or WS-II or those for which a formal petition for reclassification as WS-I or WS-II has been received from the appropriate local government and accepted by the Division of Water Quality and all Class SA waters.

(6) Future Water Supply (FWS): waters that have been requested by a local government and adopted by the Commission as a future source for drinking, culinary , or food-processing purposes. Local government(s) requesting this reclassification shall provide to the Division evidence of intent which may include one or a combination of the following: capitol improvement plans, a Water Supply Plan as described in G.S. 143-355(1), bond issuance for the water treatment plant or land acquisition records. Local governments shall provide a 1:24,000 scale USGS topographical map delineating the location of the intended water supply intake. Requirements for activities administered by the State of North Carolina, such as the issuance of permits for landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be effective upon reclassification for future water supply use. The requirements shall apply to the critical area and balance of the watershed or protected area as appropriate. Upon receipt of the final

approval letter from the Division of Environmental Health for construction of the water treatment plant and water supply intake, the Commission shall initiate rule-making to modify the Future Water Supply supplemental classification. Local government implementation is not required until 270 days after the Commission has modified the Future Water Supply (FWS) supplemental classification through the rule-making process and notified the affected local government(s) that the appropriate local government land use requirements applicable for the water supply classifications are to be adopted, implemented and submitted to the Commission for approval. Local governments may also adopt land use ordinances that meet or exceed the state's minimum requirements for water supply watershed protection prior to the end of the 270 day deadline. The requirements for FWS may also be applied to waters formerly used for drinking water supply use, and currently classified for water supply use, at the request of local government(s) desiring protection of the watershed for future water supply use.

(7) Unique wetland (UWL): wetlands of exceptional state or national ecological significance which require special protection to maintain existing uses. These wetlands may include wetlands that have been documented to the satisfaction of the Commission as habitat essential for the conservation of state or federally listed threatened or endangered species.

(f) In determining the best usage of waters and assigning classifications of such waters, the Commission shall consider the criteria specified in General Statute 143-214.1(d) and all existing uses as defined by 15A NCAC 2B .0202. In determining whether to revise a designated best usage for waters through a revision to the classifications, the Commission shall follow the requirements of 40 CFR 131.10(b),(c),(d) and (g) which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00).

(g) When revising the classification of waters, the Division shall collect water quality data within the watershed for those substances which require more stringent control than required by the existing classification. However, such sampling may be limited to only those parameters which are of concern. If the revision to classifications involves the removal of a designated use, the Division shall conduct a use attainability study as required by the provisions of 40 CFR 131.10(j) which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00).

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; February 1, 1993; August 3, 1992; August 1, 1990;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Amended Eff. October 1, 1996.

15A NCAC 02B .0102 USE OF CLASSIFICATIONS AND WATER QUALITY STANDARDS

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Repealed Eff. January 1, 1985.

15A NCAC 02B .0103 ANALYTICAL PROCEDURES

(a) Chemical/Physical Procedures. Tests or analytical procedures to determine conformity or non-conformity with standards shall, insofar as practicable and applicable, conform to the guidelines by the Environmental Protection Agency codified as 40 CFR, Part 136, which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00). Methods not codified by 40 CFR, Part 136 will, insofar as practicable and applicable, conform to the guidelines by the American Public Health

Association, American Water Works Association, Water Environment Federation publication AStandard Methods for the Examination of Water and Wastewater, 19th edition@(1996) or subsequent editions which are hereby incorporated by reference. Copies may be obtained from the Water Environment Federation, 601 Wythe St., Alexandria, VA, 22314 at a cost of one hundred and eighty dollars ($180.00).
(b) Biological Procedures. Biological tests to determine conformity or non-conformity with standards shall be based on methods published by the U.S. Environmental Protection Agency as codified as 40 CFR, Part 136, which are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health and Natural Resources, Division of Water Quality, Water Quality Planning Branch, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00).
(c) Wetland Evaluation Procedures. Evaluations of wetlands for the presence of existing uses shall be based on procedures approved by the Director. The Director shall approve wetland evaluation procedures that have been demonstrated to produce verifiable and repeatable results and that have widespread acceptance in the scientific community. Copies of approved methods or guidance may be obtained by submitting a written request to NCDWQ, Ecological Assessment Group, P.O. Box 29535, Raleigh, NC 27626-0535.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1989; January 1, 1985; September 9, 1979;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Amended Eff. October 1, 1996.

15A NCAC 02B .0104 CONSIDERATIONS/ASSIGNING/IMPLEMENTING WATER SUPPLY CLASSIFICATIONS

(a) In determining the suitability of waters for use as a source of water supply for drinking, culinary or food processing purposes after approved treatment, the Commission will be guided by the physical, chemical, and bacteriological maximum contaminant levels specified by Environmental Protection Agency regulations adopted pursuant to the Public Health Service Act, 42 U.S.C. 201 et seq., as amended by the Safe Drinking Water Act, 42 U.S.C. 300(f) et seq. In addition, the Commission shall be guided by the requirements for unfiltered and filtered water supplies and the maximum contaminant levels specified in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1100, .1200 and .1500 and comments provided by the Division of Environmental Health.
(b) All local governments that have land use authority within designated water supply watersheds shall adopt and enforce ordinances that at a minimum meet the requirements of G.S. 143-214.5 and this Subchapter. The Commission shall approve local water supply protection programs if it determines that the requirements of the local program equal or exceed the minimum statewide water supply watershed management requirements adopted pursuant to this Section. Local governments may adopt and enforce more stringent controls. Local management programs and modifications to these programs must be approved by the Commission and shall be kept on file by the Division of Environmental Management, Division of Environmental Health and the Division of Community Assistance.
(c) All waters used for water supply purposes or intended for future water supply use shall be classified to the most appropriate water supply classification as determined by the Commission. Water supplies may be reclassified to a more or less protective water supply classification on a case-by-case basis through the rule-making process. A more protective water supply classification may be applied to existing water supply watersheds after receipt of a resolution from all local governments having land use jurisdiction within the designated water supply watershed requesting a more protective water supply classification. Local government(s) requesting the Future Water Supply classification must provide to the Division evidence of intent which may include one or a combination of the following: capital improvement plans, a Water Supply Plan as described in G.S. 143-355(l), bond issuance for the water treatment plant or land acquisition records. A 1:24,000 scale USGS topographical map delineating the location of the intended water supply intake is also required. Requirements for activities administered by the State of North Carolina, such as the issuance of permits for landfills, NPDES wastewater discharges, land application of residuals and road construction activities shall be effective upon reclassification for future water supply use. The requirements shall apply to the critical area and balance of the watershed or protected area as appropriate. Upon receipt of the final approval letter from the Division of Environmental Health for construction of the water treatment plant and water supply intake, the Commission shall initiate rule-making to modify the Future Water Supply supplemental classification. Local government implementation is not required until 270 days after the Commission has modified the Future Water Supply (FWS) supplemental classification through

the rule-making process and notified the affected local government(s) that the appropriate local government land use requirements applicable for the water supply classifications are to be adopted, implemented and submitted to the Commission for approval. Local governments may also adopt land use ordinances that meet or exceed the state's minimum requirements for water supply watershed protection prior to the end of the 270 day deadline. The requirements for FWS may also be applied to waters formerly used for drinking water supply purposes, and currently classified for water supply use, at the request of local government(s) desiring protection of the watershed for future water supply use.

(d) In considering the reclassification of waters for water supply purposes, the Commission shall take into consideration the relative proximity, quantity, composition, natural dilution and diminution of potential sources of pollution to determine that risks posed by all significant pollutants are adequately considered.

(e) For the purposes of implementing the water supply watershed protection rules (15A NCAC 2B .0100, .0200 and .0300) and the requirements of G.S. 143-214.5, the following schedule of implementation shall be applicable:

August 3, 1992 - Activities administered by the State of North Carolina, such as the issuance of permits for landfills, NPDES wastewater discharges, and land application of sludge/residuals, and road construction activities, shall become effective regardless of the deadlines for municipal and county water supply watershed protection ordinance adoptions;

By July 1, 1993 - Affected municipalities with a population greater than 5,000 shall adopt and submit the appropriate drinking water supply protection, maps and ordinances that meet or exceed the minimum management requirements of these Rules;

By October 1, 1993 -Affected municipalities with a population less than 5,000 shall adopt and submit the appropriate drinking water supply protection, maps and ordinances that meet or exceed the minimum management requirements of these Rules;

By January 1, 1994 -Affected county governments shall adopt and submit the appropriate drinking water supply protection, maps and ordinances that meet or exceed the minimum management requirements of these Rules.

Affected local government drinking water supply protection ordinances shall become effective on or before these dates. Local governments may choose to adopt, implement and enforce these provisions prior to this date. Three copies of the adopted and effective relevant ordinances shall be sent to the Division along with a cover letter from the municipal or county attorney, or its designated legal counsel, stating that the local government drinking water supply protection ordinances shall meet or exceed the rules in 15A NCAC 2B .0100, .0200 and .0300. If the rules in 15A NCAC 2B .0100, .0200 and .0300 are revised, the Division shall modify and distribute to local governments, as appropriate, a revised model ordinance. The Division shall approve the amended local maps and ordinances, or request the Commission to take appropriate action under G.S. 143-214.5.

(f) Wherever in this Subchapter it is provided that local governments assume responsibility for operation and maintenance of engineered stormwater control(s), this shall be construed to require responsible local governments to inspect such controls at least once per year, to determine whether the controls are performing as designed and intended. Records of inspections shall be maintained on forms supplied by the Division. Local governments may require payment of reasonable inspection fees by entities which own the controls, as authorized by law. In the event inspection shows that a control is not performing adequately, the local government shall order the owning entity to take corrective actions. If the entity fails to take sufficient corrective actions, the local government may impose civil penalties and pursue other available remedies in accordance with the law. The availability of new engineered stormwater controls as an alternative to lower development density and other measures under the provisions of this Subchapter and local ordinances approved by the Commission shall be conditioned on the posting of adequate financial assurance, in the form of a cash deposit or bond made payable to the responsible local government, or other acceptable security. The establishment of a stormwater utility by the responsible local government shall be deemed adequate financial assurance. The purpose of the required financial assurance is to assure that maintenance, repairs or reconstruction necessary for adequate performance of the controls may be made by the owning entity or the local government which may choose to assume ownership and maintenance responsibility.

(g) Where higher density developments are allowed, stormwater control systems must use wet detention ponds as described in 15A NCAC 2H .1003(g)(2), (g)(3), (i), (j), (k), and (l). Alternative stormwater management systems consisting of other treatment options, or a combination of treatment options, may be approved by the Director. The design criteria for approval shall be 85 percent average annual removal of Total Suspended Solids. Also the discharge rate shall meet one of the following criteria:

(1) the discharge rate following the 1-inch design storm shall be such that the runoff draws down to the pre-storm design stage within five days, but not less than two days; or

(2) the post development peak discharge rate shall equal the predevelopment rate for the 1-year, 24 hour storm.

(h) Where no practicable alternative exists, discharge from groundwater remediation projects addressing water quality problems shall be allowed in accordance with other applicable requirements in all water supply classifications.

(i) To further the cooperative nature of the water supply watershed management and protection program provided for herein, local governments with jurisdiction over portions of classified watersheds and local governments which derive their water supply from within such watersheds are encouraged to establish joint water quality monitoring and information sharing programs, by interlocal agreement or otherwise. Such cooperative programs shall be established in consultation with the Division.
(j) Where no practicable alternative exists other than surface water discharge, previously unknown existing unpermitted wastewater discharges shall incorporate the best possible technology treatment as deemed appropriate by the Division.
(k) The Commission may designate water supply watersheds or portions thereof as critical water supply watersheds pursuant to G.S. 143-214.5(b).
(l) A more protective classification may be allowed by the Commission although minor occurrences of nonconforming activities are present prior to reclassification. When the Commission allows a more protective classification, expansions of existing wastewater discharges that otherwise would have been prohibited may be allowed if there is no increase in permitted pollutant loading; other discharges of treated wastewater existing at the time of reclassification may be required to meet more stringent effluent limitations as determined by the Division. Consideration of all practicable alternatives to surface water discharge must be documented.
(m) The construction of new roads and bridges and non-residential development shall minimize built-upon area, divert stormwater away from surface water supply waters as much as possible, and employ best management practices (BMPs) to minimize water quality impacts. To the extent practicable, the construction of new roads in the critical area shall be avoided. The Department of Transportation shall use BMPs as outlined in their document entitled "Best Management Practices for the Protection of Surface Waters" which is hereby incorporated by reference including all subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Environmental Management, Water Quality Planning Branch, 512 North Salisbury Street, Raleigh, North Carolina.
(n) Activities within water supply watersheds are also governed by the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1100, .1200 and .1500. Proposed expansions of treated wastewater discharges to water supply waters must be approved by the Division of Environmental Health.
(o) Local governments shall correctly delineate the approximate normal pool elevation for backwaters of water supply reservoirs for the purposes of determining the critical and protected area boundaries as appropriate. Local governments must submit to the Division a 1:24,000 scale U.S.G.S. topographic map which shows the local government's corporate and extraterritorial jurisdiction boundaries, the Commission's adopted critical and protected area boundaries, as well as the local government's interpreted critical and protected area boundaries. All revisions (expansions or deletions) to these areas must be submitted to the Division and approved by the Commission prior to local government revision.
(p) Local governments shall encourage participation in the Agricultural Cost Share Program. The Soil and Water Conservation Commission is the designated management agency responsible for implementing the provisions of the rules in 15A NCAC 2H .0200 pertaining to agricultural activities. Agricultural activities are subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990 (Public Law 101-624) and 15A NCAC 2H .0217). The following shall be required within WS-I watersheds and the critical areas of WS-II, WS-III and WS-IV watersheds:

(1) Agricultural activities conducted after January 1, 1993 shall maintain a minimum 10 foot vegetated buffer, or equivalent control as determined by the Soil and Water Conservation Commission, along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies; and
(2) Animal operation deemed permitted and permitted under 15A NCAC 2H .0217 are allowed in all classified water supply watersheds.

(q) Existing development is not subject to the requirements of these Rules. Redevelopment is allowed if the rebuilding activity does not have a net increase in built-upon area or provides equal or greater stormwater control than the previous development, except that there are no restrictions on single family residential redevelopment. Expansions to structures classified as existing development must meet the requirements of the rules in 15A NCAC 2B .0100, .0200 and .0300; however, the built-upon area of the existing development is not required to be included in the density calculations. Expansions to structures other than existing development must meet the density requirements of these Rules for the entire project site. If a nonconforming lot of record is not contiguous to any other lot owned by the same party, then that lot of record shall not be subject to the development restrictions of these Rules if it is developed for single-family residential purposes. Local governments may, however, require the combination of contiguous nonconforming lots of record owned by the same party in order to establish a lot or lots that meet or nearly meet the development restrictions of the rules under 15A NCAC 2B. Any lot or parcel created as part of a family subdivision after the effective date of these Rules shall be exempt from these Rules if it is developed for one single-family detached residence and if it is exempt from local subdivision regulation. Any lot or parcel created as part of any other type of subdivision that is exempt from a local subdivision ordinance shall be subject to the land use requirements (including impervious surface requirements) of these

Rules, except that such a lot or parcel must meet the minimum buffer requirements to the maximum extent practicable. Local governments may also apply more stringent controls relating to determining existing development, redevelopment or expansions.

(r) Development activities may be granted minor variances by local governments utilizing the procedures of G.S. 153A Article 18, or G.S. 160A, Article 19. A description of each project receiving a variance and the reason for granting the variance shall be submitted to the Commission on an annual basis by January 1. For all proposed major and minor variances from the minimum statewide watershed protection rules, the local Watershed Review Board shall make findings of fact showing that:

(1) there are practical difficulties or unnecessary hardships that prevent compliance with the strict letter of the ordinance;

(2) the variance is in harmony with the general purpose and intent of the local watershed protection ordinance and preserves its spirit; and

(3) in granting the variance, the public safety and welfare have been assured and substantial justice has been done.

The local Watershed Review Board may attach conditions to the major or minor variance approval that support the purpose of the local watershed protection ordinance. If the variance request qualifies as a major variance, and the local Watershed Review Board decides in favor of granting the major variance, the Board shall then prepare a preliminary record of the hearing and submit it to the Commission for review and approval. If the Commission approves the major variance or approves with conditions or stipulations added, then the Commission shall prepare a Commission decision which authorizes the local Watershed Review Board to issue a final decision which would include any conditions or stipulations added by the Commission. If the Commission denies the major variance, then the Commission shall prepare a Commission decision to be sent to the local Watershed Review Board. The local Watershed Review Board shall prepare a final decision denying the major variance. For all proposed major and minor variances the local government considering or requesting the variance shall notify and allow a reasonable comment period for all other local governments having jurisdiction within the watershed area governed by these Rules and the entity using the water supply for consumption. Appeals from the local government decision on a major or minor variance request are made on certiorari to the local Superior Court. Appeals from the Commission decision on a major variance request are made on judicial review to Superior Court. When local ordinances are more stringent than the state's minimum water supply protection rules a variance to the local government's ordinance is not considered a major variance as long as the result of the variance is not less stringent than the state's minimum requirements.

(s) Cluster development is allowed on a project-by-project basis as follows:

(1) Overall density of the project meets associated density or stormwater control requirements under 15A NCAC 2B .0200;

(2) Buffers meet the minimum statewide water supply watershed protection requirements;

(3) Built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(4) Areas of concentrated density development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(5) Remainder of tract to remain in vegetated or natural state;

(6) The area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement. A maintenance agreement shall be filed with the property deeds; and

(7) Cluster developments that meet the applicable low density requirements shall transport stormwater runoff by vegetated conveyances to the maximum extent practicable.

(t) Local governments may administer oversight of future development activities in single family residential developments that exceed the applicable low density requirements by tracking dwelling units rather than percentage built-upon area, as long as the wet detention pond or other approved stormwater control system is sized to capture and treat runoff from all pervious and built-upon surfaces shown on the development plan and any off-site drainage from pervious and built-upon surfaces, and when an additional safety factor of 15 percent of built-upon area of the project site is figured in.

(u) All new development shall meet the development requirements on a project-by-project basis except local governments may submit ordinances and ordinance revisions which use density or built-upon area criteria averaged throughout the local government's watershed jurisdiction instead of on a project-by-project basis within the watershed. Prior to approval of the ordinance or amendment, the local government must demonstrate to the Commission that the provisions as averaged meet or exceed the statewide minimum requirements, and that a mechanism exists to ensure the orderly and planned distribution of development potential throughout the watershed jurisdiction.

(v) Silviculture activities are subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15A NCAC 1I .0101 - .0209). The Division of Forest Resources is the designated management agency responsible for implementing the provisions of the rules in 15A NCAC 2B .0200 pertaining to silviculture activities.
(w) Local governments shall, as the existing laws allow, develop, implement, and enforce comprehensive nonpoint source and stormwater discharge control programs to reduce water pollution from activities within water supply watersheds such as development, forestry, landfills, mining, on-site sanitary sewage systems which utilize ground adsorption, toxic and hazardous materials, transportation, and water based recreation.
(x) When the Commission assumes a local water supply protection program as specified under G.S. 143-214.5(e) all local permits authorizing construction and development activities as regulated by the statewide minimum water supply watershed protection rules of this Subchapter must be approved by the Commission prior to local government issuance.
(y) In the event that stormwater management systems or facilities may impact existing waters or wetlands of the United States, the Clean Water Act requires that these systems or facilities be consistent with all federal and state requirements.
(z) A model local water supply watershed management and protection ordinance, as approved by the Commission in accordance with G.S. 143-214.5, is on file with the Office of Administrative Hearings and may be obtained by writing to: Water Quality Planning Branch, Division of Environmental Management, Post Office Box 29535, Raleigh, North Carolina 27626-0535.
(aa) The Commission may delegate such matters as variance approval, extension of deadlines for submission of corrected ordinances and assessment of civil penalties to the Director.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; August 3, 1992; March 1, 1991; October 1, 1989.

15A NCAC 02B .0105 DETERMINATION OF SAFETY OR SUITABILITY: CLASS A-II WATERS

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. January 1, 1985; September 9, 1979;
Repealed Eff. February 1, 1986.

15A NCAC 02B .0106 CONSIDERATIONS/ASSIGNING CLASSIFICATIONS FOR PRIMARY RECREATION
In assigning the B or SB classification to waters intended for primary recreation, the Commission will take into consideration the relative proximity of sources of water pollution and will recognize the potential hazards involved in locating swimming areas close to sources of water pollution and will not assign this classification to waters in which such water pollution could result in a hazard to public health. Discharges to waters classified as B or SB will meet the reliability requirements specified in 15A NCAC 2H .0124. Discharges to waters where a primary recreational use is determined by the Director to be attainable will be required to meet water quality standards and reliability requirements to protect this use concurrently with reclassification efforts.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0107 DEFINITION OF REGULATIONS: CLASSIFICATIONS: AND STANDARDS

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Repealed Eff. January 1, 1985.

15A NCAC 02B .0108 CONSIDERATIONS IN ASSIGNING THE SHELLFISHING AREA CLASSIFICATION

In determining the safety or suitability of Class SA waters to be used for shellfishing for market purposes, the Commission will be guided by the existing water quality of the area in relation to the standards to protect shellfishing uses, the potential contamination of the area from both point and nonpoint sources of pollution, and the presence of harvestable quantities of shellfish or the potential for the area to have harvestable quantities through management efforts of the Division of Marine Fisheries. Waters will not be classified SA without the written concurrence of the Division of Health Services, North Carolina Department of Human Resources.

History Note: *Authority G.S. 143-214.1;*
Eff. January 1, 1985;
Amended Eff. October 1, 1989.

15A NCAC 02B .0109 WATERS AFFECTED BY DREDGE AND FILL ACTIVITIES

History Note: *Authority G.S. 143-214.1;*
Eff. October 1, 1989;
Repealed Eff. October 1, 1996.

15A NCAC 02B .0110 CONSIDERATIONS FOR FEDERALLY-LISTED THREATENED OR ENDANGERED AQUATIC SPECIES

Certain waters provide habitat for federally-listed aquatic animal species that are listed as threatened or endangered by the U.S. Fish and Wildlife Service or National Marine Fisheries Service under the provisions of the Endangered Species Act, 16 U.S.C. 1531-1544 and subsequent modifications. Maintenance and recovery of the water quality conditions required to sustain and recover federally-listed threatened and endangered aquatic animal species contributes to the support and maintenance of a balanced and indigenous community of aquatic organisms and thereby protects the biological integrity of the waters. The Division shall develop site-specific management strategies under the provisions of 15A NCAC 2B .0225 or 15A NCAC 2B .0227 for those waters. These plans shall be developed within the basinwide planning schedule with all plans completed at the end of each watershed's first complete five year cycle following adoption of this Rule. Nothing in this Rule shall prevent the Division from taking other actions within its authority to maintain and restore the quality of these waters.

History Note: *Authority G. S. 143-214.1; 143-215.3(a)(1); 143-215.8A;*
Eff. August 1, 2000.

SECTION .0200 - CLASSIFICATIONS AND WATER QUALITY STANDARDS APPLICABLE TO SURFACE WATERS AND WETLANDS OF NORTH CAROLINA

15A NCAC 02B .0201 ANTIDEGRADATION POLICY

(a) It is the policy of the Environmental Management Commission to maintain, protect, and enhance water quality within the State of North Carolina. Pursuant to this policy, the requirements of 40 CFR 131.12 are hereby incorporated by reference including any subsequent amendments and editions. This material is available for inspection at the Department of Environment, Health, and Natural Resources, Division of Water Quality, Water Quality Section, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the U.S. Government Printing Office, Superintendent of Documents, Washington, DC 20402-9325 at a cost of thirteen dollars ($13.00). These requirements shall be implemented in North Carolina as set forth in Paragraphs (b), (c), (d), (e) and (f) of this Rule.

(b) Existing uses, as defined by Rule .0202 of this Section, and the water quality to protect such uses shall be protected by properly classifying surface waters and having standards sufficient to protect these uses. In cases where the Commission or its designee determines that an existing use is not included in the classification of waters, a project which shall affect these waters shall not be permitted unless the existing uses are protected.

(c) The Commission shall consider the present and anticipated usage of waters with quality higher than the standards, including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water

quality) and shall not allow degradation of the quality of waters with quality higher than the standards below the water quality necessary to maintain existing and anticipated uses of those waters. Waters with quality higher than the standards are defined by Rule .0202 of this Section. The following procedures shall be implemented in order to meet these requirements:

(1) Each applicant for an NPDES permit or NPDES permit expansion to discharge treated waste shall document an effort to consider non-discharge alternatives pursuant to 15A NCAC 2H .0105(c)(2).

(2) Public Notices for NPDES permits shall list parameters that would be water quality limited and state whether or not the discharge shall use the entire available load capacity of the receiving waters and may cause more stringent water quality based effluent limitations to be established for dischargers downstream.

(3) The Division may require supplemental documentation from the affected local government that a proposed project or parts of the project are necessary for important economic and social development.

(4) The Commission and Division shall work with local governments on a voluntary basis to identify and develop appropriate management strategies or classifications for waters with unused pollutant loading capacity to accommodate future economic growth.

Waters with quality higher than the standards shall be identified by the Division on a case-by-case basis through the NPDES permitting and waste load allocation processes (pursuant to the provisions of 15A NCAC 2H .0100). Dischargers affected by the requirements of Paragraphs (c)(1) through (c)(4) of this Rule and the public at large shall be notified according to the provisions described herein, and all other appropriate provisions pursuant to 15A NCAC 2H .0109. If an applicant objects to the requirements to protect waters with quality higher than the standards and believes degradation is necessary to accommodate important social and economic development, the applicant may contest these requirements according to the provisions of General Statute 143-215.1(e) and 150B-23.

(d) The Commission shall consider the present and anticipated usage of High Quality Waters (HQW), including any uses not specified by the assigned classification (such as outstanding national resource waters or waters of exceptional water quality) and shall not allow degradation of the quality of High Quality Waters below the water quality necessary to maintain existing and anticipated uses of those waters. High Quality Waters are a subset of waters with quality higher than the standards and are as described by 15A NCAC 2B .0101(e)(5). The procedures described in Rule .0224 of this Section shall be implemented in order to meet the requirements of this part.

(e) Outstanding Resource Waters (ORW) are a special subset of High Quality Waters with unique and special characteristics as described in Rule .0225 of this Section. The water quality of waters classified as ORW shall be maintained such that existing uses, including the outstanding resource values of said Outstanding Resource Waters, shall be maintained and protected.

(f) Activities regulated under Section 404 of the Clean Water Act (33 U.S.C. 1344) which require a water quality certification as described in Section 401 of the Clean Water Act (33 U.S.C. 1341) shall be evaluated according to the procedures outlined in 15A NCAC 2H .0500. Activities which receive a water quality certification pursuant to these procedures shall not be considered to remove existing uses. The evaluation of permits issued pursuant to G.S. 143-215.1 that involve the assimilation of wastewater or stormwater by wetlands shall incorporate the criteria found in 15A NCAC 2H .0506(c) (1)-(5) in determining the potential impact of the proposed activity on the existing uses of the wetland per 15A NCAC 2H .0231.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1995; August 1, 1995; February 1, 1993; April 1,1991; August 1, 1990;
RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Amended Eff. October 1, 1996.

15A NCAC 02B .0202 DEFINITIONS

The definition of any word or phrase used in this Section shall be the same as given in G.S. 143, Article 21. The following words and phrases, which are not defined in this article, shall be interpreted as follows:

(1) Acute toxicity to aquatic life means lethality or other harmful effects sustained by either resident aquatic populations or indicator species used as test organisms in a controlled toxicity test due to a short-term exposure (relative to the life cycle of the organism) to a specific chemical or mixture of chemicals (as in an effluent). Short-term exposure for acute tests is generally 96 hours or less. Acute toxicity shall be determined using the following procedures:

(a) for specific chemical constituents or compounds, acceptable levels shall be equivalent to a concentration of one-half or less of the Final Acute Value (FAV) as determined according to "Guidelines for Deriving Numerical Water Quality Criteria for the Protection of Aquatic Life and its

Uses" published by the Environmental Protection Agency and referenced in the Federal Register (50 FR 30784, July 29, 1985) which is hereby incorporated by reference including any subsequent amendments.

(b) for specific chemical constituents or compounds for which values described under Subparagraph (1)(a) of this Rule can not be determined, acceptable levels shall be equivalent to a concentration of one-third or less of the lowest available LC50 value.

(c) for effluents, acceptable levels are defined as no statistically measurable lethality (99 percent confidence level using Students t test) during a specified exposure period. Concentrations of exposure shall be determined on a case-by-case basis.

(d) in instances where detailed dose response data indicate that levels of acute toxicity are significantly different from those defined in this Rule, the Director may determine on a case-by-case basis an alternate acceptable level through statistical analyses of the dose response curve.

(2) Acute to Chronic Ratio (ACR) means the ratio of acute toxicity expressed as an LC50 for a specific toxicant or an effluent to the chronic value for the same toxicant or effluent.

(3) Agricultural uses include the use of waters for stock watering, irrigation, and other farm purposes.

(4) Applicator means any person, firm, corporation, wholesaler, retailer, distributor, any local, state, or federal governmental agency, or any other person who applies fertilizer to the land of a consumer or client or to land they own or to land which they lease or otherwise hold rights.

(5) Approved treatment, as applied to water supplies, means treatment accepted as satisfactory by the Division of Environmental Health or Division of Water Quality.

(6) Average (except bacterial) means arithmetical average and includes the analytical results of all samples taken during the specified period; all sampling shall be done as to obtain the most representative sample under prevailing conditions:

(a) Daily Average for dissolved oxygen, shall be of at least four samples;

(b) Weekly Average means the average of all daily composite samples obtained during the calendar week. If only one grab sample is taken each day, the weekly average is the average of all daily grab samples. A minimum of three daily grab samples is needed to calculate a weekly average.

(c) Monthly Average means the average of all daily composites (or grab samples if only one per day) obtained during the calendar month.

The definitions in this Paragraph do not affect the monitoring requirements for NPDES permits but rather shall be used by the Division along with other methodologies in determining violations of water quality standards. Arithmetical averages as defined by this Section, and not confidence limits nor other statistical descriptions, shall be used in all calculations of limitations which require the use of averages pursuant to this Section and 40 CFR 122.41(l)(4)(iii).

(7) Best Management Practice (BMP) means a structural or nonstructural management-based practice used singularly or in combination to reduce nonpoint source inputs to receiving waters in order to achieve water quality protection goals.

(8) Best usage of waters as specified for each class means those uses as determined by the Environmental Management Commission in accordance with the provisions of G.S. 143-214.1.

(9) Bioaccumulation factor (BAF) is a unitless value that describes the degree to which substances are taken up or accumulated into tissues of aquatic organisms from water directly and from food or other ingested materials containing the accumulated substances, and is usually measured as a ratio of a substance's concentration in tissue versus its concentration in water in situations where exposure to the substance is occurring from both water and the food chain.

(10) Bioconcentration factor (BCF) is a unitless value that describes the degree to which substances are absorbed or concentrated into tissues of aquatic organisms from water directly and is usually measured as a ratio of substance's concentration in tissue versus its concentration in water in situations where exposure to the substance is occurring from water only.

(11) Biological integrity means the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions.

(12) Buffer means a natural or vegetated area through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer shall be measured landward from the normal pool elevation of impounded structures and from the bank of each side of streams or rivers.

(13) Built-upon area means that portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel areas (e.g. roads, parking lots, paths), recreation facilities (e.g. tennis courts), etc. (Note: Wooden slatted decks and the water area of a swimming pool are considered pervious.)

(14) Chronic toxicity to aquatic life means any harmful effect sustained by either resident aquatic populations or indicator species used as test organisms in a controlled toxicity test due to long-term exposure (relative to the life cycle of the organism) or exposure during a substantial portion of the duration of a sensitive period of the life cycle to a specific chemical substance or mixture of chemicals (as in an effluent). In absence of extended periods of exposure, early life stage or reproductive toxicity tests may be used to define chronic impacts.

(15) Chronic value for aquatic life means the geometric mean of two concentrations identified in a controlled toxicity test as the No Observable Effect Concentration (NOEC) and the Lowest Observable Effect Concentration (LOEC).

(16) Cluster development means the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project including minimizing stormwater runoff impacts. This term includes nonresidential development as well as single-family residential and multi-family developments. For the purpose of Sections .0100, .0200 and .0300 of this Subchapter, planned unit developments and mixed use development shall be considered as cluster development.

(17) Commercial applicator means any person, firm, corporation, wholesaler, retailer, distributor or any other person who for hire or compensation applies fertilizer to the land of a consumer or client.

(18) Concentrations are the mass of a substance per volume of water and for the purposes of this Section shall be expressed as milligrams per liter (mg/l), micrograms per liter (ug/l), or nanograms per liter (ng/l).

(19) Contiguous refers to those wetlands landward of the mean high water line or normal water level and within 575 feet of classified surface waters which appear as solid blue lines on the most recently published versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps.

(20) Critical area means the area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed. The critical area is defined as extending either 1/2 mile from the normal pool elevation of the reservoir in which the intake is located or to the ridge line of the watershed (whichever comes first); or 1/2 mile upstream from and draining to the intake (or other appropriate downstream location associated with the water supply) located directly in the stream or river (run-of-the-river), or to the ridge line of the watershed (whichever comes first). Since WS-I watersheds are essentially undeveloped, establishment of a critical area is not required. Local governments may extend the critical area as needed. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the critical area if these landmarks are immediately adjacent to the appropriate outer boundary of 1/2 mile. The Commission may adopt a different critical area size during the reclassification process.

(21) Cropland means agricultural land that is not covered by a certified animal waste management plan and is used for growing corn, grains, oilseed crops, cotton, forages, tobacco, beans, or other vegetables or fruits.

(22) Designated Nonpoint Source Agency means those agencies specified by the Governor in the North Carolina Nonpoint Source Management Program, as approved by the Environmental Protection Agency.

(23) Development means any land disturbing activity which adds to or changes the amount of impervious or partially impervious cover on a land area or which otherwise decreases the infiltration of precipitation into the soil.

(24) Director means the Director of the Division of Water Quality.

(25) Discharge is the addition of any man-induced waste effluent either directly or indirectly to state surface waters.

(26) Division means the Division of Water Quality or its successors.

(27) Domestic wastewater discharge means the discharge of sewage, non-process industrial wastewater, other domestic wastewater or any combination of these items. Domestic wastewater includes, but is not limited to, liquid waste generated by domestic water using fixtures and appliances, from any residence, place of business, or place of public assembly even if it contains no sewage. Examples of domestic wastewater include once-through non-contact cooling water, seafood packing facility discharges and wastewater from restaurants.

(28) Effluent channel means a discernable confined and discrete conveyance which is used for transporting treated wastewater to a receiving stream or other body of water as provided in Rule .0215 of this Section.

(29) Existing development, for projects that do not require a state permit, shall be defined as those projects that are built or those projects that at a minimum have established a vested right under North Carolina zoning law as of the effective date of the local government water supply ordinance, or such earlier time that an affected local government's ordinances shall specify, based on at least one of the following criteria:

(a) substantial expenditures of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project, or

(b) having an outstanding valid building permit in compliance with G.S. 153A-344.1 or G.S. 160A-385.1, or

(c) having an approved site specific or phased development plan in compliance with G.S. 153A-344.1 or G.S. 160A-385.1.

For projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, existing development shall be defined as those projects that are built or those projects for which a state permit was issued prior to August 3, 1992.

(30) Existing uses mean uses actually attained in the water body, in a significant and not incidental manner, on or after November 28, 1975, whether or not they are included in the water quality standards, which either have been actually available to the public or are uses deemed attainable by the Environmental Management Commission. At a minimum, uses shall be deemed attainable if they can be achieved by the imposition of effluent limits and cost-effective and reasonable best management practices (BMPs) for nonpoint source control.

(31) Family subdivision means a division of a tract of land:

(a) to convey the resulting parcels, with the exception of parcels retained by the grantor, to a relative or relatives as a gift or for nominal consideration, but only if no more than one parcel is conveyed by the grantor from the tract to any one relative; or

(b) to divide land from a common ancestor among tenants in common, all of whom inherited by intestacy or by will.

(32) Fertilizer means any substance containing nitrogen or phosphorus which is used primarily for its plant food content.

(33) Fishing means the taking of fish by sport or commercial methods as well as the consumption of fish or shellfish or the propagation of fish and such other aquatic life as is necessary to provide a suitable environment for fish.

(34) Forest vegetation means the plants of an area which grow together in disturbed or undisturbed conditions in various wooded plant communities in any combination of trees, saplings, shrubs, vines and herbaceous plants. This includes mature and successional forests as well as cutover stands.

(35) Freshwater means all waters that under natural conditions would have a chloride ion content of 500 mg/l or less.

(36) Industrial discharge means the discharge of industrial process treated wastewater or wastewater other than sewage. Stormwater shall not be considered to be an industrial wastewater unless it is contaminated with industrial wastewater. Industrial discharge includes:

(a) wastewater resulting from any process of industry or manufacture, or from the development of any natural resource;

(b) wastewater resulting from processes of trade or business, including wastewater from laundromats and car washes, but not wastewater from restaurants; or

(c) wastewater discharged from a municipal wastewater treatment plant requiring a pretreatment program.

(37) Land-disturbing activity means any use of the land that results in a change in the natural cover or topography that may cause or contribute to sedimentation.

(38) LC50 means that concentration of a toxic substance which is lethal (or immobilizing, if appropriate) to 50 percent of the organisms tested during a specified exposure period. The LC50 concentration for toxic materials shall be determined for sensitive species as defined by Subparagraph (43) of this Rule under aquatic conditions characteristic of the receiving waters.

(39) Local government means a city or county in singular or plural as defined in G.S. 160A-1(2) and G.S. 158A-10.

(40) Lower piedmont and coastal plain waters mean those waters of the Catawba River Basin below Lookout Shoals Dam; the Yadkin River Basin below the junction of the Forsyth, Yadkin, and Davie County lines; and all of the waters of Cape Fear, Lumber, Roanoke, Neuse, Tar-Pamlico, Chowan, Pasquotank, and White Oak River Basins; except tidal salt waters which are assigned S classifications.

(41) MF is an abbreviation for the membrane filter procedure for bacteriological analysis.

(42) Major variance means a variance from the minimum statewide watershed protection rules that results in the relaxation, by a factor greater than five percent of any buffer, density or built-upon area requirement under the high density option; any variation in the design, maintenance or operation requirements of a wet detention

pond or other approved stormwater management system; or relaxation by a factor greater than 10 percent, of any management requirement under the low density option.

(43) Minor variance means a variance from the minimum statewide watershed protection rules that results in a relaxation, by a factor of up to five percent of any buffer, density or built-upon area requirement under the high density option; or that results in a relaxation by a factor up to 10 percent, of any management requirement under the low density option.

(44) Mixing zone means a region of the receiving water in the vicinity of a discharge within which dispersion and dilution of constituents in the discharge occurs and such zones shall be subject to conditions established in accordance with 15A NCAC 2B .0204(b).

(45) Mountain and upper piedmont waters mean all of the waters of the Hiwassee; Little Tennessee, including the Savannah River drainage area; French Broad; Broad; New; and Watauga River Basins; and those portions of the Catawba River Basin above Lookout Shoals Dam and the Yadkin River Basin above the junction of the Forsyth, Yadkin, and Davie County lines.

(46) Nonconforming lot of record means a lot described by a plat or a deed that was recorded prior to the effective date of local watershed regulations (or their amendments) that does not meet the minimum lot-size or other development requirements of Rule .0211 of this Subchapter.

(47) Nonpoint source pollution means pollution which enters waters mainly as a result of precipitation and subsequent runoff from lands which have been disturbed by man's activities and includes all sources of water pollution which are not required to have a permit in accordance with G.S. 143-215.1(c).

(48) Non-process discharge means industrial effluent not directly resulting from the manufacturing process. An example would be non-contact cooling water from a compressor.

(49) Nutrient sensitive waters mean those waters which are so designated in the classification schedule in order to limit the discharge of nutrients (usually nitrogen and phosphorus). They are designated by "NSW" following the water classification.

(50) Offensive condition means any condition or conditions resulting from the presence of sewage, industrial wastes or other wastes within the waters of the state or along the shorelines thereof which shall either directly or indirectly cause foul or noxious odors, unsightly conditions, or breeding of abnormally large quantities of mosquitoes or other insect pests, or shall damage private or public water supplies or other structures, result in the development of gases which destroy or damage surrounding property, herbage or grasses, or which may cause the impairment of taste, such as from fish flesh tainting, or affect the health of any person residing or working in the area.

(51) Primary Nursery Areas (PNAs) are tidal saltwaters which provide essential habitat for the early development of commercially important fish and shellfish and are so designated by the Marine Fisheries Commission.

(52) Primary recreation includes swimming, skin diving, skiing, and similar uses involving human body contact with water where such activities take place in an organized or on a frequent basis.

(53) Protected area means the area adjoining and upstream of the critical area in a WS-IV water supply in which protection measures are required. The boundaries of the protected areas are defined as within five miles of the normal pool elevation of the reservoir and draining to water supply reservoirs (measured from the normal pool elevation) or to the ridge line of the watershed (whichever comes first); or 10 miles upstream and draining to the intake located directly in the stream or river (run-of-the-river), or to the ridge line of the watershed (whichever comes first). Local governments may extend the protected area. Major landmarks such as highways or property lines may be used to delineate the outer boundary of the protected area if these landmarks are immediately adjacent to the appropriate outer boundary of five or 10 miles. In some cases the protected area shall encompass the entire watershed. The Commission may adopt a different protected area size during the reclassification process.

(54) Residential development means buildings for residence such as attached and detached single family dwellings, apartment complexes, condominiums, townhouses, cottages, and their associated outbuildings such as garages, storage buildings, and gazebos.

(55) Residuals means any solid or demisolid waste generated from a wastewater treatment plant, water treatment plant or air pollution control facility permitted under the authority of the Environmental Management Commission.

(56) Riparian area means an area that is adjacent to a body of water.

(57) Secondary recreation includes wading, boating, other uses not involving human body contact with water, and activities involving human body contact with water where such activities take place on an infrequent, unorganized, or incidental basis.

(58) Sensitive species for aquatic toxicity testing is any species utilized in procedures accepted by the Commission or its designee in accordance with Rule .0103 of this Subchapter, or the following genera:
- (a) Daphnia;
- (b) Ceriodaphnia;
- (c) Salmo;
- (d) Pimephales;
- (e) Mysidopsis;
- (f) Champia;
- (g) Cyprinodon;
- (h) Arbacia;
- (i) Penaeus;
- (j) Menidia;
- (k) Notropis;
- (l) Salvelinus;
- (m) Oncorhynchus;
- (n) Selenastrum;
- (o) Chironomus;
- (p) Hyalella;
- (q) Lumbriculus.

(59) Shellfish culture includes the use of waters for the propagation, storage and gathering of oysters, clams, and other shellfish for market purposes.

(60) Stormwater collection system means any conduit, pipe, channel, curb or gutter for the primary purpose of transporting (not treating) runoff. A stormwater collection system does not include vegetated swales, swales stabilized with armoring or alternative methods where natural topography prevents the use of vegetated swales (subject to case-by-case review), curb outlet systems or pipes used to carry drainage underneath built-upon surfaces that are associated with development controlled by the provisions of 15A NCAC 2H .1003(c)(1).

(61) Source of water supply for drinking, culinary or food-processing purposes means any source, either public or private, the waters from which are used for human consumption, or used in connection with the processing of milk, beverages, food, or other purpose which requires water suitable for human consumption.

(62) Swamp waters mean those waters which are classified by the Environmental Management Commission and which are topographically located so as to generally have very low velocities and other characteristics which are different from adjacent streams draining steeper topography. They are designated by "Sw" following the water classification.

(63) Tidal salt waters mean all tidal waters which are classified by the Environmental Management Commission which generally have a natural chloride ion content in excess of 500 parts per million and include all waters assigned S classifications.

(64) Toxic substance or toxicant means any substance or combination of substances (including disease-causing agents), which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression in reproduction or growth) or physical deformities in such organisms or their offspring.

(65) Trout waters are those waters which have conditions which shall sustain and allow for trout propagation and survival of stocked trout on a year-round basis. These waters shall be classified by the Commission after considering the requirements of Rule .0101(b) and (c) of this Subchapter and include all waters designated by "Tr" in the water classification.

(66) Waste disposal includes the use of waters for disposal of sewage, industrial waste or other waste after approved treatment.

(67) Water dependent structures are those structures for which the use requires access or proximity to or siting within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots and commercial boat storage areas are not water dependent structures.

(68) Water quality based effluent limits and best management practices are limitations or best management practices developed by the Division for the purpose of protecting water quality standards and best usage of

surface waters consistent with the requirements of G.S. 143-214.1 and the Federal Water Pollution Control Act as amended.

(69) Waters with quality higher than the standards means all waters for which the determination of waste load allocations (pursuant to Rule .0206 of this Section) indicates that water quality is sufficiently greater than that defined by the standards such that significant pollutant loading capacity still exists in those waters.

(70) Watershed means the entire land area contributing surface drainage to a specific point. For the purpose of the water supply protection rules in 15A NCAC 2B .0104 and .0211 local governments may use major landmarks such as highways or property lines to delineate the outer boundary of the drainage area if these landmarks are immediately adjacent to the ridgeline.

(71) Wetlands are "waters" as defined by G.S. 143-212(6) and are areas that are inundated or saturated by an accumulation of surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands classified as waters of the state are restricted to waters of the United States as defined by 33 CFR 328.3 and 40 CFR 230.3.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; February 1, 1993; August 3, 1992; August 1, 1990;
RRC Objection Eff. July 18, 1996 due to lack of authority and ambiguity;
Amended Eff. August 1, 1998; October 1, 1996.

15A NCAC 02B .0203 PROTECTION OF WATERS DOWNSTREAM OF RECEIVING WATERS

Water quality based effluent limitations or management practices for direct or indirect discharges of waste or for other sources of water pollution will be developed by the Division such that the water quality standards and best usage of receiving waters and all downstream waters will not be impaired.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0204 LOCATION OF SAMPLING SITES AND MIXING ZONES

(a) Location of Sampling Sites. In conducting tests or making analytical determinations of classified waters to determine conformity or nonconformity with the established standards, samples shall be collected outside the limits of prescribed mixing zones. However, where appropriate, samples shall be collected within the mixing zone in order to ensure compliance with in-zone water quality requirements as outlined in Paragraph (b) of this Rule.

(b) Mixing Zones. A mixing zone may be established in the area of a discharge in order to provide reasonable opportunity for the mixture of the wastewater with the receiving waters. Water quality standards will not apply within regions defined as mixing zones, except that such zones will be subject to the conditions established in accordance with this Rule. The limits of such mixing zones will be defined by the division on a case-by-case basis after consideration of the magnitude and character of the waste discharge and the size and character of the receiving waters. Mixing zones will be determined such that discharges will not:

(1) result in acute toxicity to aquatic life [as defined by Rule .0202(1) of this Section] or prevent free passage of aquatic organisms around the mixing zone;

(2) result in offensive conditions;

(3) produce undesirable aquatic life or result in a dominance of nuisance species outside of the assigned mixing zone;

(4) endanger the public health or welfare.

In addition, a mixing zone will not be assigned for point source discharges of fecal coliform organisms in waters classified "WS-II," "WS-III," "B," "SB," or "SA." For the discharge of heated wastewater, compliance with federal rules and regulations pursuant to Section 316(a) of the Federal Water Pollution Control Act, as amended, shall constitute compliance with Subparagraph (b) of this Rule.

History Note: *Authority G.S. 143-214.1;*

Eff. February 1, 1976;
Amended Eff. October 1, 1989; February 1, 1986; September 9, 1979.

15A NCAC 02B .0205 NATURAL CHARACTERISTICS OUTSIDE STANDARDS LIMITS

Natural waters may on occasion, or temporarily, have characteristics outside of the normal range established by the standards. The adopted water quality standards relate to the condition of waters as affected by the discharge of sewage, industrial wastes or other wastes including those from nonpoint sources and other sources of water pollution. Water quality standards will not be considered violated when values outside the normal range are caused by natural conditions. Where wastes are discharged to such waters, the discharger will not be considered a contributor to substandard conditions provided maximum treatment in compliance with permit requirements is maintained and, therefore, meeting the established limits is beyond the discharger's control.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1989; January 1, 1985.

15A NCAC 02B .0206 FLOW DESIGN CRITERIA FOR EFFLUENT LIMITATIONS

(a) Water quality based effluent limitations are developed to allow appropriate frequency and duration of deviations from water quality standards so that the designated uses of receiving waters are protected. There are water quality standards for a number of categories of pollutants and to protect a range of water uses. For this reason, the appropriate frequency and duration of deviations from water quality standards is not the same for all categories of standards. A flow design criterion is used in the development of water quality based effluent limitations as a simplified means of estimating the acceptable frequency and duration of deviations. More complex modeling techniques can also be used to set effluent limitations directly based on frequency and duration criteria published by the U.S. Environmental Protection Agency pursuant to Section 304(a) of the Federal Clean Water Act as amended. Use of more complex modeling techniques to set water quality based effluent limitations will be approved by the Commission or its designee on a case-by-case basis. Flow design criteria to calculate water quality based effluent limitations for categories of water quality standards are listed as follows:

(1) All standards except toxic substances and aesthetics will be protected using the minimum average flow for a period of seven consecutive days that has an average recurrence of once in ten years (7Q10 flow). Other governing flow strategies such as varying discharges with the receiving waters ability to assimilate wastes may be designated by the Commission or its designee on a case-by-case basis if the discharger or permit applicant provide evidence which establishes to the satisfaction of the Director that the alternative flow strategies will give equal or better protection for the water quality standards. Better protection for the standards means that deviations from the standard would be expected less frequently than provided by using the 7Q10 flow.

(2) Toxic substance standards to protect aquatic life from chronic toxicity will be protected using the 7Q10 flow.

(3) Toxic substance standards to protect human health will be:

(A) The 7Q10 flow for standards to protect human health through the consumption of water, fish and shellfish from noncarcinogens;

(B) The mean annual flow to protect human health from carcinogens through the consumption of water, fish and shellfish unless site specific fish contamination concerns necessitate the use of an alternative design flow;

(4) Aesthetic quality will be protected using the minimum average flow for a period of 30 consecutive days that has an average recurrence of once in two years (30Q2 flow).

(b) In cases where the stream flow is regulated, a minimum daily low flow may be used as a substitute for the 7Q10 flow except in cases where there are acute toxicity concerns for aquatic life. In the cases where there are acute toxicity concerns, an alternative low flow such as the instantaneous minimum release may be used on a case-by-case basis.

(c) Flow design criteria are used to develop water quality based effluent limitations and for the design of wastewater treatment facilities. Deviations from a specific water quality standard resulting from discharges which are affirmatively demonstrated to be in compliance with water quality based effluent limitations for that standard will not be a violation pursuant to G.S. 143-215.6 when the actual flow is significantly less than the design flow.

(d) In cases where the 7Q10 flow of the receiving stream is estimated to be zero, water quality based effluent limitations will be assigned as follows:

(1) Where the 30Q2 flow is estimated to be greater than zero, effluent limitations for new or expanded (additional) discharges of oxygen consuming waste will be set at BOD_5= 5 mg/l, NH_3-N = 2 mg/l and DO = 6 mg/l, unless

it is determined that these limitations will not protect water quality standards. Requirements for existing discharges will be determined on a case-by-case basis by the Director. More stringent limits will be applied in cases where violations of water quality standards are predicted to occur for a new or expanded discharge with the limits set pursuant to this Rule, or where existing limits are determined to be inadequate to protect water quality standards.

(2) If the 30Q2 and 7Q10 flows are both estimated to be zero, no new or expanded (additional) discharge of oxygen consuming waste will be allowed. Requirements for existing discharges to streams where the 30Q2 and 7Q10 flows are both estimated to be zero will be determined on a case-by-case basis.

(3) Other water quality standards will be protected by requiring the discharge to meet the standards unless the alternative limitations are determined by the Director to protect the classified water uses.

(e) Receiving water flow statistics will be estimated through consultation with the U.S. Geological Survey. Estimates for any given location may be based on actual flow data, modeling analyses, or other methods determined to be appropriate by the Commission or its designee.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1989; August 1, 1985; January 1, 1985.

15A NCAC 02B .0207 MINIMUM ACCEPTABLE DEGREE OF TREATMENT

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Repealed Eff. September 9, 1979.

15A NCAC 02B .0208 STANDARDS FOR TOXIC SUBSTANCES AND TEMPERATURE

(a) Toxic Substances. The concentration of toxic substances, either alone or in combination with other wastes, in surface waters will not render waters injurious to aquatic life or wildlife, recreational activities, public health, or impair the waters for any designated uses. Specific standards for toxic substances to protect freshwater and tidal saltwater uses are listed in Rules .0211 and .0212 of this Section, respectively. Procedures for interpreting the narrative standard for toxic substances and numerical standards applicable to all waters are as follows:

(1) Aquatic life standards. The concentration of toxic substances will not result in chronic toxicity. Any levels in excess of the chronic value will be considered to result in chronic toxicity. In the absence of direct measurements of chronic toxicity, the concentration of toxic substances will not exceed the concentration specified by the fraction of the lowest LC50 value which predicts a no effect chronic level (as determined by the use of acceptable acute/chronic ratios). If an acceptable acute/chronic ratio is not available, then that toxic substance will not exceed one-one hundredth (0.01) of the lowest LC50 or if it is affirmatively demonstrated that a toxic substance has a half-life of less than 96 hours the maximum concentration will not exceed one-twentieth (0.05) of the lowest LC50.

(2) Human health standards. The concentration of toxic substances will not exceed the level necessary to protect human health through exposure routes of fish (or shellfish) tissue consumption, water consumption, or other route identified as appropriate for the water body.

(A) For non-carcinogens, these concentrations will be determined using a Reference Dose (RfD) as published by the U.S. Environmental Protection Agency pursuant to Section 304(a) of the Federal Water Pollution Control Act as amended or a RfD issued by the U.S. Environmental Protection Agency as listed in the Integrated Risk Information System (IRIS) file or a RfD approved by the Director after consultation with the State Health director. Water quality standards or criteria used to calculate water quality based effluent limitations to protect human health through the different exposure routes are determined as follows:

(i) Fish tissue consumption:

WQS = (RfD-DT) x Body Weight / (FCRxBCF)

where:

WQS = water quality standard or criteria;
RfD = reference dose;
DT = estimated non-fish dietary intake (when available);
FCR = fish consumption rate (assumed to be 6.5 gm/person-day);
BCF = bioconcentration factor, or bioaccumulation factor (BAF), as appropriate.

BCF or BAF values are based on U.S. Environmental Protection Agency publications pursuant to Section 304(a) of the Federal Water Pollution Control Act as amended, literature values, or site specific bioconcentration data approved by the Commission or its designee; FCR values are average consumption rates for a 70 Kg adult for the lifetime of the population; alternative FCR values may be used when it is considered necessary to protect localized populations which may be consuming fish at a higher rate;

(ii) Water consumption (including a correction for fish consumption):

WQS = (RfD-DT) x Body Weight / [WCR+(FCRxBCF)]

where:

WQS = water quality standard or criteria;
RfD = reference dose;
DT = estimated non-fish dietary intake (when available);
FCR = fish consumption rate (assumed to be 6.5 gm/person-day);
BCF = bioconcentration factor, or bioaccumulation factor (BAF), as appropriate;
WCR = water consumption rate (assumed to be 2 liters per day for adults).

To protect sensitive groups, exposure may be based on a 10 Kg child drinking one liter of water per day. Standards may also be based on drinking water standards based on the requirements of the Federal Safe Drinking Water Act [42 U.S.C. 300(f)(g)-1]. For non-carcinogens, specific numerical water quality standards have not been included in this Rule because water quality standards to protect aquatic life for all toxic substances for which standards have been considered are more stringent than numerical standards to protect human health from non-carcinogens through consumption of fish; standards to protect human health from non-carcinogens through water consumption are listed under the water supply classification standards in Rule .0211 of this Section; the equations listed in this Subparagraph will be used to develop water quality based effluent limitations on a case-by-case basis for toxic substances which are not presently included in the water quality standards. Alternative FCR values may be used when it is considered necessary to protect localized populations which may be consuming fish at a higher rate;

(B) For carcinogens, the concentrations of toxic substances will not result in unacceptable health risks and will be based on a Carcinogenic Potency Factor (CPF). An unacceptable health risk for cancer will be considered to be more than one case of cancer per one million people exposed (10-6 risk level). The CPF is a measure of the cancer-causing potency of a substance estimated by the upper 95 percent confidence limit of the slope of a straight line calculated by the Linearized Multistage Model or other appropriate model according to U.S. Environmental Protection Agency Guidelines [FR 51 (185): 33992-34003; and FR 45 (231 Part V): 79318-79379]. Water quality standards or criteria for water quality based effluent limitations are calculated using the procedures given in Subparagraphs (A) and (B) of this Rule. Standards to protect human health from carcinogens through water consumption are listed under the water supply classification standards in Rule .0211 of this Section; standards to protect human health from carcinogens through the consumption of fish (and shellfish) only are applicable to all waters as follows:

(i) Berylium: 117 ng/l;
(ii) Benzene: 71.4 ug/l;
(iii) Carbon tetrachloride: 4.42 ug/l;
(iv) Dioxin: 0.000014 ng/l;
(v) Hexachlorobutadiene: 49.7 ug/l;
(vi) Polychlorinated biphenyls: 0.079 ng/l;
(vii) Polynuclear aromatic hydrocarbons: 31.1 ng/l;
(viii) Tetrachloroethane (1,1,2,2): 10.8 ug/l;
(ix) Trichloroethylene: 92.4 ug/l;
(x) Vinyl chloride: 525 ug/l;
(xi) Aldrin: 0.136 ng/l;
(xii) Chlordane: 0.588 ng/l;
(xiii) DDT: 0.591 ng/l;

(xiv) Dieldrin: 0.144 ng/l;
(xv) Heptachlor: 0.214 ng/l.

The values listed in (i) through (xv) in Subparagraph (B) of this Rule may be adjusted by the Commission or its designee on a case-by-case basis to account for site-specific or chemical-specific information pertaining to the assumed BCF, FCR or CPF values or other appropriate data.

(b) Temperature. The Commission may establish a water quality standard for temperature for specific water bodies other than the standards specified in Rules .0211 and .0212 of this Section, upon a case-by-case determination that thermal discharges to these waters, which serve or may serve as a source and/or receptor of industrial cooling water provide for the maintenance of the designated best use throughout a reasonable portion of the water body. Such revisions of the temperature standard must be consistent with the provisions of Section 316(a) of the Federal Water Pollution Control Act as amended and will be noted in Rule .0218 of this Section.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. February 1, 1993; October 1, 1989; January 1, 1985; September 9, 1979.

15A NCAC 02B .0209 VARIANCES FROM APPLICABLE STANDARDS
15A NCAC 02B .0210 BEST USE CRITERIA

History Note: *Authority G.S. 143-214.1;*
Eff. February 1, 1976;
Amended Eff. September 9, 1979;
Repealed Eff. January 1, 1985.

15A NCAC 02B .0211 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS C WATERS

General. The water quality standards for all fresh surface waters are the basic standards applicable to Class C waters. Additional and more stringent standards applicable to other specific freshwater classifications are specified in Rules .0212, .0214, .0215, .0216, .0217, .0218, .0219, .0223, .0224 and .0225 of this Section.

(1) Best Usage of Waters. Aquatic life propagation and maintenance of biological integrity (including fishing, and fish), wildlife, secondary recreation, agriculture and any other usage except for primary recreation or as a source of water supply for drinking, culinary or food processing purposes;

(2) Conditions Related to Best Usage. The waters shall be suitable for aquatic life propagation and maintenance of biological integrity, wildlife, secondary recreation, and agriculture; sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard;

(3) Quality standards applicable to all fresh surface waters:

(a) Chlorophyll a (corrected): not greater than 40 ug/l for lakes, reservoirs, and other waters subject to growths of macroscopic or microscopic vegetation not designated as trout waters, and not greater than 15 ug/l for lakes, reservoirs, and other waters subject to growths of macroscopic or microscopic vegetation designated as trout waters (not applicable to lakes and reservoirs less than 10 acres in surface area); the Commission or its designee may prohibit or limit any discharge of waste into surface waters if, in the opinion of the Director, the surface waters experience or the discharge would result in growths of microscopic or macroscopic vegetation such that the standards established pursuant to this Rule would be violated or the intended best usage of the waters would be impaired;

(b) Dissolved oxygen: not less than 6.0 mg/l for trout waters; for non-trout waters, not less than a daily average of 5.0 mg/l with a minimum instantaneous value of not less than 4.0 mg/l; swamp waters, lake coves or backwaters, and lake bottom waters may have lower values if caused by natural conditions;

(c) Floating solids; settleable solids; sludge deposits: only such amounts attributable to sewage, industrial wastes or other wastes as shall not make the water unsafe or unsuitable for aquatic life and wildlife or impair the waters for any designated uses;

(d) Gases, total dissolved: not greater than 110 percent of saturation;

(e) Organisms of the coliform group: fecal coliforms shall not exceed a geometric mean of 200/100ml (MF count) based upon at least five consecutive samples examined during any 30 day period, nor exceed 400/100ml in more than 20 percent of the samples examined during such period; violations of the fecal coliform standard are expected during rainfall events and, in some cases, this violation is expected to be caused by uncontrollable nonpoint source pollution; all coliform concentrations are to be analyzed using the membrane filter technique unless high turbidity or other adverse conditions necessitate the tube dilution method; in case of controversy over results, the MPN 5-tube dilution technique shall be used as the reference method;

(f) Oils; deleterious substances; colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation or to aquatic life and wildlife or adversely affect the palatability of fish, aesthetic quality or impair the waters for any designated uses; for the purpose of implementing this Rule, oils, deleterious substances, colored or other wastes shall include but not be limited to substances that cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines pursuant to 40 CFR 110.4(a)-(b) which are hereby incorporated by reference including any subsequent amendments and additions. This material is available for inspection at the Department of Environment and Natural Resources, Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402-9325 at a cost of thirteen dollars ($13.00).

(g) pH: shall be normal for the waters in the area, which generally shall range between 6.0 and 9.0 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions;

(h) Phenolic compounds: only such levels as shall not result in fish-flesh tainting or impairment of other best usage;

(i) Radioactive substances:

(i) Combined radium-226 and radium-228: the maximum average annual activity level (based on at least four samples collected quarterly) for combined radium-226 and radium-228 shall not exceed five picoCuries per liter;

(ii) Alpha Emitters: the average annual gross alpha particle activity (including radium-226, but excluding radon and uranium) shall not exceed 15 picoCuries per liter;

(iii) Beta Emitters: the maximum average annual activity level (based on at least four samples, collected quarterly) for strontium-90 shall not exceed eight picoCuries per liter; nor shall the average annual gross beta particle activity (excluding potassium-40 and other naturally occurring radio-nuclides) exceed 50 picoCuries per liter; nor shall the maximum average annual activity level for tritium exceed 20,000 picoCuries per liter;

(j) Temperature: not to exceed 2.8 degrees C (5.04 degrees F) above the natural water temperature, and in no case to exceed 29 degrees C (84.2 degrees F) for mountain and upper piedmont waters and 32 degrees C (89.6 degrees F) for lower piedmont and coastal plain waters. The temperature for trout waters shall not be increased by more than 0.5 degrees C (0.9 degrees F) due to the discharge of heated liquids, but in no case to exceed 20 degrees C (68 degrees F);

(k) Turbidity: the turbidity in the receiving water shall not exceed 50 Nephelometric Turbidity Units (NTU) in streams not designated as trout waters and 10 NTU in streams, lakes or reservoirs designated as trout waters; for lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTU; if turbidity exceeds these levels due to natural background conditions, the existing turbidity level cannot be increased. Compliance with this turbidity standard can be met when land management activities employ Best Management Practices (BMPs) [as defined by Rule .0202(6) of this Section] recommended by the Designated Nonpoint Source Agency [as defined by Rule .0202 of this Section]. BMPs must be in full compliance with all specifications governing the proper design, installation, operation and maintenance of such BMPs;

(l) Toxic substances: numerical water quality standards (maximum permissible levels) to protect aquatic life applicable to all fresh surface waters:

(i) Arsenic: 50 ug/l;

(ii) Beryllium: 6.5 ug/l;

(iii) Cadmium: 0.4 ug/l for trout waters and 2.0 ug/l for non-trout waters; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to

translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

(iv) Chlorine, total residual: 17 ug/l for trout waters (Tr); (Action Level of 17 ug/l for all waters not classified as trout waters (Tr); see Item (4) of this Rule);

(v) Chromium, total recoverable: 50 ug/l;

(vi) Cyanide: 5.0 ug/l;

(vii) Fluorides: 1.8 mg/l;

(viii) Lead, total recoverable: 25 ug/l; collection of data on sources, transport and fate of lead shall be required as part of the toxicity reduction evaluation for dischargers that are out of compliance with whole effluent toxicity testing requirements and the concentration of lead in the effluent is concomitantly determined to exceed an instream level of 3.1 ug/l from the discharge;

(ix) MBAS (Methylene-Blue Active Substances): 0.5 mg/l;

(x) Mercury: 0.012 ug/l;

(xi) Nickel: 88 ug/l; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or “The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion” published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

(xii) Pesticides:

(A) Aldrin: 0.002 ug/l;

(B) Chlordane: 0.004 ug/l;

(C) DDT: 0.001 ug/l;

(D) Demeton: 0.1 ug/l;

(E) Dieldrin: 0.002 ug/l;

(F) Endosulfan: 0.05 ug/l;

(G) Endrin: 0.002 ug/l;

(H) Guthion: 0.01 ug/l;

(I) Heptachlor: 0.004 ug/l;

(J) Lindane: 0.01 ug/l;

(K) Methoxychlor: 0.03 ug/l;

(L) Mirex: 0.001 ug/l;

(M) Parathion: 0.013 ug/l;

(N) Toxaphene: 0.0002 ug/l;

(xiii) Polychlorinated biphenyls: 0.001 ug/l;

(xiv) Selenium: 5 ug/l;

(xv) Toluene: 11 ug/l or 0.36 ug/l in trout waters;

(xvi) Trialkyltin compounds: 0.008 ug/l expressed as tributyltin;

(4) Action Levels for Toxic Substances: if the Action Levels for any of the substances listed in this Subparagraph (which are generally not bioaccumulative and have variable toxicity to aquatic life because of chemical form, solubility, stream characteristics or associated waste characteristics) are determined by the waste load allocation to be exceeded in a receiving water by a discharge under the specified low flow criterion for toxic

substances (Rule .0206 in this Section), the discharger shall monitor the chemical or biological effects of the discharge; efforts shall be made by all dischargers to reduce or eliminate these substances from their effluents. Those substances for which Action Levels are listed in this Subparagraph shall be limited as appropriate in the NPDES permit based on the Action Levels listed in this Subparagraph if sufficient information (to be determined for metals by measurements of that portion of the dissolved instream concentration of the Action Level parameter attributable to a specific NPDES permitted discharge) exists to indicate that any of those substances may be a causative factor resulting in toxicity of the effluent. NPDES permit limits may be based on translation of the toxic form to total recoverable metals. Studies used to determine the toxic form or translators must be designed according to "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

(a) Copper: 7 ug/l;
(b) Iron: 1.0 mg/l;
(c) Silver: 0.06 ug/l;
(d) Zinc: 50 ug/l;
(e) Chloride: 230 mg/l;
(f) Chlorine, total residual: 17 ug/l in all waters except trout waters (Tr); [a standard of 17 ug/l exists for waters classified as trout waters and is applicable as such to all dischargers to trout waters; see Sub-Item (3)(1)(iv) of this Rule];

For purposes other than consideration of NPDES permitting of point source discharges as described in this Subparagraph, the Action Levels in this Rule, as measured by an appropriate analytical technique, per 15A NCAC 2B .0103(a), shall be considered as numerical ambient water quality standards.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2000; October 1, 1995; August 1, 1995; April 1, 1994; February 1, 1993.

15A NCAC 02B .0212 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-I WATERS

The following water quality standards apply to surface waters within water supply watersheds that are classified WS-I. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-I waters.

(1) Best Usage of Waters. Source of water supply for drinking, culinary, or food-processing purposes for those users desiring maximum protection of their water supplies, waters located on land in public ownership, and any best usage specified for Class C waters.

(2) Conditions Related to the Best Usage. Waters of this class are protected water supplies within essentially natural and undeveloped watersheds in public ownership with no permitted point source dischargers except those specified in Rule .0104 of this Subchapter; waters within this class must be relatively unimpacted by nonpoint sources of pollution; land use management programs are required to protect waters from nonpoint source pollution; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, and food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500; sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-I classification may be used to protect portions of Class WS-II, WS-III and WS-IV water supplies. For reclassifications occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures.

(3) Quality Standards Applicable to Class WS-I Waters:

(a) Nonpoint Source Pollution: none that would adversely impact the waters for use as a water supply or any other designated use;

(b) Organisms of coliform group: total coliforms not to exceed 50/100 ml (MF count) as a monthly geometric mean value in watersheds serving as unfiltered water supplies;
(c) Phenolic compounds: not greater than 1.0 ug/l (phenols) to protect water supplies from taste and odor problems from chlorinated phenols;
(d) Sewage, industrial wastes: none except those specified in Subparagraph (2) of this Paragraph or Rule .0104 of this Subchapter;
(e) Solids, total dissolved: not greater than 500 mg/l;
(f) Total hardness: not greater than 100 mg/l as calcium carbonate;
(g) Toxic and other deleterious substances:
  (i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-I waters:
    (A) Barium: 1.0 mg/l;
    (B) Chloride: 250 mg/l;
    (C) Manganese: 200 ug/l;
    (D) Nickel: 25 ug/l;
    (E) Nitrate nitrogen: 10.0 mg/l;
    (F) 2,4-D: 100 ug/l;
    (G) 2,4,5-TP (Silvex): 10 ug/l;
    (H) Sulfates: 250 mg/l;
  (ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-I waters:
    (A) Beryllium: 6.8 ng/l;
    (B) Benzene: 1.19 ug/l;
    (C) Carbon tetrachloride: 0.254 ug/l;
    (D) Chlorinated benzenes: 488 ug/l;
    (E) Dioxin: 0.000013 ng/l;
    (F) Hexachlorobutadiene: 0.445 ug/l;
    (G) Polynuclear aromatic hydrocarbons: 2.8 ng/l;
    (H) Tetrachloroethane (1,1,2,2): 0.172 ug/l;
    (I) Tetrachloroethylene: 0.8 ug/l;
    (J) Trichloroethylene: 3.08 ug/l;
    (K) Vinyl Chloride: 2 ug/l;
    (L) Aldrin: 0.127 ng/l;
    (M) Chlordane: 0.575 ng/l;
    (N) DDT: 0.588 ng/l;
    (O) Dieldrin: 0.135 ng/l;
    (P) Heptachlor: 0.208 ng/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. October 1, 1995; February 1, 1993; March 1, 1991; October 1, 1989.

15A NCAC 02B .0213 REVISIONS TO DISSOLVED OXYGEN STANDARDS

History Note: *Authority G.S. 143-214.1;*
Eff. December 14, 1978;
Amended Eff. July 1, 1988;
Repealed Eff. October 1, 1989.

15A NCAC 02B .0214 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-II WATERS

The following water quality standards apply to surface waters within water supply watersheds that are classified WS-II. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-II waters.

(1) Best Usage of Waters. Source of water supply for drinking, culinary, or food-processing purposes for those users desiring maximum protection for their water supplies where a WS-I classification is not feasible and any best usage specified for Class C waters.

(2) Conditions Related to Best Usage. Waters of this class are protected as water supplies which are in predominantly undeveloped watersheds and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule; discharges which qualify for a General Permit pursuant to 15A NCAC 2H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events and other stormwater discharges are allowed in the entire watershed; new domestic and industrial discharges of treated wastewater are not allowed in the entire watershed; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, and food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500; sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-II classification may be used to protect portions of Class WS-III and WS-IV water supplies. For reclassifications of these portions of Class WS-III and WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures.

(3) Quality Standards Applicable to Class WS-II Waters:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none except for those specified in either Item (2) of this Rule and Rule .0104 of this Subchapter; and none which shall have an adverse effect on human health or which are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment, Health, and Natural Resources; any discharger may be required upon request by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water quality; these facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as a water supply or any other designated use;

(i) Nonpoint Source and Stormwater Pollution Control Criteria For Entire Watershed:

(A) Low Density Option: Development density must be limited to either no more than one dwelling unit per acre of single family detached residential development (or 40,000 square foot lot excluding roadway right-of-way) or 12 percent built-upon area for all other residential and non-residential development in the watershed outside of the critical area; Stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development exceeds the low density option requirements as stated in Sub-Item (3)(b)(i)(A) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 30 percent built-upon area;

(C) Land within the watershed shall be deemed compliant with the density requirements if the following condition is met: The density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire watershed area at the time of classification;

(D) Cluster development is allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Section;

(II) buffers meet the minimum statewide water supply watershed protection requirements;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas; and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state;

(VI) area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(E) A maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1993 may be developed with new development projects and expansions of existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(i)(B) of this Rule. For expansions to existing development, the existing built-upon surface area is not counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to another local government within the watershed upon submittal of a joint resolution and review by the Commission. When the water supply watershed is composed of public lands, such as National Forest land, local governments may count the public land acreage within the watershed outside of the critical area in calculating the acreage allowed under this provision. For local governments that do not choose to use the high density option in that WS-II watershed, each project must, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters and incorporate best management practices to minimize water quality impacts; if the local government selects the high density development option within that WS-II watershed, then engineered stormwater controls must be employed for the new development;

(F) If local governments choose the high density development option which requires stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(G) Minimum 100 foot vegetative buffer is required for all new development activities that exceed the low density option requirements as specified in Sub-Items (3)(b)(i)(A) and Sub-Item (3)(b)(ii)(A) of this Rule; otherwise a minimum 30 foot vegetative buffer for development activities is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies; nothing in this Section shall stand as a bar to desirable artificial streambank or shoreline stabilization;

(H) No new development is allowed in the buffer; water dependent structures, or other structures such as flag poles, signs and security lights, which result in only diminimus increases in impervious area and public projects such as road

crossings and greenways may be allowed where no practicable alternative exists; these activities shall minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of BMPs;

(I) No NPDES permits shall be issued for landfills that discharge treated leachate;

(ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:

(A) Low Density Option: New development is limited to either no more than one dwelling unit of single family detached residential development per two acres (or 80,000 square foot lot excluding roadway right-of-way) or six percent built-upon area for all other residential and non-residential development; Stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development density exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall; new residential and non-residential development density not to exceed 24 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils are allowed;

(D) No new landfills are allowed;

(c) Odor producing substances contained in sewage or other wastes: only such amounts, whether alone or in combination with other substances or wastes, as will not cause: taste and odor difficulties in water supplies which cannot be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(d) Phenolic compounds: not greater than 1.0 ug/l (phenols) to protect water supplies from taste and odor problems from chlorinated phenols;

(e) Total hardness: not greater than 100 mg/l as calcium carbonate;

(f) Total dissolved solids: not greater than 500 mg/l;

(g) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-II waters:

(A) Barium: 1.0 mg/l;

(B) Chloride: 250 mg/l;

(C) Manganese: 200 ug/l;

(D) Nickel: 25 ug/l;

(E) Nitrate nitrogen: 10 mg/l;

(F) 2,4-D: 100 ug/l;

(G) 2,4,5-TP: 10 ug/l;

(H) Sulfates: 250 mg/l;

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-II waters:

(A) Beryllium: 6.8 ng/l;

(B) Benzene: 1.19 ug/l;

(C) Carbon tetrachloride: 0.254 ug/l;

(D) Chlorinated benzenes: 488 ug/l;

(E) Dioxin: 0.000013 ng/l;

(F) Hexachlorobutadiene: 0.445 ug/l;

(G) Polynuclear aromatic hydrocarbons: 2.8 ng/l;

(H) Tetrachloroethane (1,1,2,2): 0.172 ug/l;

(I) Tetrachloroethylene: 0.8 ug/l;

(J) Trichloroethylene: 3.08 ug/l;

(K) Vinyl Chloride: 2 ug/l;

(L) Aldrin: 0.127 ng/l;

(M) Chlordane: 0.575 ng/l;

(N) DDT: 0.588 ng/l;
(O) Dieldrin: 0.135 ng/l;
(P) Heptachlor: 0.208 ng/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. May 10, 1979;
Amended Eff. January 1, 1996; October 1, 1995.

15A NCAC 02B .0215 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-III WATERS

The following water quality standards apply to surface water supply waters that are classified WS-III. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-III waters.

(1) Best Usage of Waters. Source of water supply for drinking, culinary, or food-processing purposes for those users where a more protective WS-I or WS-II classification is not feasible and any other best usage specified for Class C waters;

(2) Conditions Related to Best Usage. Waters of this class are protected as water supplies which are generally in low to moderately developed watersheds and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule; discharges that qualify for a General Permit pursuant to 15A NCAC 2H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events, and other stormwater discharges are allowed in the entire watershed; treated domestic wastewater discharges are allowed in the entire watershed but no new domestic wastewater discharges are allowed in the critical area; no new industrial wastewater discharges except non-process industrial discharges are allowed in the entire watershed; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, or food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500; sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard; the Class WS-III classification may be used to protect portions of Class WS-IV water supplies. For reclassifications of these portions of WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures.

(3) Quality Standards Applicable to Class WS-III Waters:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none except for those specified in Item (2) of this Rule and Rule .0104 of this Subchapter; and none which shall have an adverse effect on human health or which are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment, Health, and Natural Resources; any discharger may be required by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water quality; these facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as water supply or any other designated use;

(i) Nonpoint Source and Stormwater Pollution Control Criteria For Entire Watershed:

(A) Low Density Option: Development density must be limited to either no more than two dwelling units of single family detached residential development per acre (or 20,000 square foot lot excluding roadway right-of-way) or 24 percent built-upon area for all other residential and non-residential development in watershed outside of the critical area; Stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development density exceeds the low density option requirements specified in Sub-Item (3)(b)(i)(A) of this Rule then development

must control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 50 percent built-upon area;

(C) Land within the watershed shall be deemed compliant with the density requirements if the following condition is met: The density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire watershed area;

(D) Cluster development is allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Section;

(II) buffers meet the minimum statewide water supply watershed protection requirements;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas; and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state;

(VI) area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(E) A maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1993 may be developed with new development projects and expansions of existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(i)(B) of this Rule. For expansions to existing development, the existing built-upon surface area is not counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to another local government within the watershed upon submittal of a joint resolution and review by the Commission. When the water supply watershed is composed of public lands, such as National Forest land, local governments may count the public land acreage within the watershed outside of the critical area in figuring the acreage allowed under this provision. For local governments that do not choose to use the high density option in that WS-III watershed, each project must, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters, and incorporate best management practices to minimize water quality impacts; if the local government selects the high density development option within that WS-III watershed, then engineered stormwater controls must be employed for the new development;

(F) If local governments choose the high density development option which requires engineered stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(G) Minimum 100 foot vegetative buffer is required for all new development activities that exceed the low density requirements as specified in Sub-Item

(3)(b)(i)(A) and Sub-Item (3)(b)(ii)(A) of this Rule, otherwise a minimum 30 foot vegetative buffer for development is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies; nothing in this Section shall stand as a bar to artificial streambank or shoreline stabilization;

(H) No new development is allowed in the buffer; water dependent structures, or other structures such as flag poles, signs and security lights, which result in only diminimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists; these activities shall minimize built-upon surface area, direct runoff away from surface waters and maximize the utilization of BMPs;

(I) No NPDES permits shall be issued for landfills that discharge treated leachate;

(ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:

(A) Low Density Option: New development limited to either no more than one dwelling unit of single family detached residential development per acre (or 40,000 square foot lot excluding roadway right-of-way) or 12 percent built-upon area for all other residential and non-residential development; Stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall; development shall not exceed 30 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils are allowed;

(D) No new landfills are allowed;

(c) Odor producing substances contained in sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or wastes, as shall not cause taste and odor difficulties in water supplies which cannot be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(d) Phenolic compounds: not greater than 1.0 ug/l (phenols) to protect water supplies from taste and odor problems from chlorinated phenols;

(e) Total hardness: not greater than 100 mg/l as calcium carbonate;

(f) Total dissolved solids: not greater than 500 mg/l;

(g) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-III waters:

(A) Barium: 1.0 mg/l;

(B) Chloride: 250 mg/l;

(C) Manganese: 200 ug/l;

(D) Nickel: 25 ug/l;

(E) Nitrate nitrogen: 10 mg/l;

(F) 2,4-D: 100 ug/l;

(G) 2,4,5-TP (Silvex): 10 ug/l;

(H) Sulfates: 250 mg/l;

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-III waters:

(A) Beryllium: 6.8 ng/l;

(B) Benzene: 1.19 ug/l;

(C) Carbon tetrachloride: 0.254 ug/l;

(D) Chlorinated benzenes: 488 ug/l;

(E) Dioxin: 0.000013 ng/l;

(F) Hexachlorobutadiene: 0.445 ug/l;

(G) Polynuclear aromatic hydrocarbons: 2.8 ng/l;
(H) Tetrachloroethane (1,1,2,2): 0.172 ug/l;
(I) Tetrachloroethylene: 0.8 ug/l;
(J) Trichloroethylene: 3.08 ug/l;
(K) Vinyl Chloride: 2 ug/l;
(L) Aldrin: 0.127 ng/l;
(M) Chlordane: 0.575 ng/l;
(N) DDT: 0.588 ng/l;
(O) Dieldrin: 0.135 ng/l;
(P) Heptachlor: 0.208 ng/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. September 9, 1979;
Amended Eff. January 1, 1996; October 1, 1995; October 1, 1989.

15A NCAC 02B .0216 FRESH SURFACE WATER QUALITY STANDARDS FOR WS-IV WATERS

The following water quality standards apply to surface water supply waters that are classified WS-IV. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-IV waters.

(1) Best Usage of Waters. Source of water supply for drinking, culinary, or food-processing purposes for those users where a more protective WS-I, WS-II or WS-III classification is not feasible and any other best usage specified for Class C waters.

(2) Conditions Related to Best Usage. Waters of this class are protected as water supplies which are generally in moderately to highly developed watersheds or protected areas and meet average watershed development density levels as specified in Sub-Items (3)(b)(i)(A), (3)(b)(i)(B), (3)(b)(ii)(A) and (3)(b)(ii)(B) of this Rule. Discharges which qualify for a General Permit pursuant to 15A NCAC 2H .0127, trout farm discharges, recycle (closed loop) systems that only discharge in response to 10-year storm events, other stormwater discharges and domestic wastewater discharges shall be allowed in the protected and critical areas. Treated industrial wastewater discharges are allowed in the protected and critical areas; however, new industrial wastewater discharges in the critical area shall be required to meet the provisions of 15A NCAC 2B .0201(d)(1)(B)(iv), (v) and (vii), and 15A NCAC 2B .0203. New industrial connections and expansions to existing municipal discharges with a pretreatment program pursuant to 15A NCAC 2H .0904 are the allowed. The waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, or food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard. The Class WS-II or WS-III classifications may be used to protect portions of Class WS-IV water supplies. For reclassifications of these portions of WS-IV water supplies occurring after the July 1, 1992 statewide reclassification, the more protective classification requested by local governments shall be considered by the Commission when all local governments having jurisdiction in the affected area(s) have adopted a resolution and the appropriate ordinances to protect the watershed or the Commission acts to protect a watershed when one or more local governments has failed to adopt necessary protection measures.

(3) Quality Standards Applicable to Class WS-IV Waters:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none shall be allowed except for those specified in Item (2) of this Rule and Rule .0104 of this Subchapter and none shall be allowed which shall have an adverse effect on human health or which are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment, Health, and Natural Resources. Any discharges or industrial users subject to pretreatment standards may be required by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water supplies. These facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none shall be allowed that would adversely impact the waters for use as water supply or any other designated use.

(i) Nonpoint Source and Stormwater Pollution Control Criteria For Entire Watershed or Protected Area:

(A) Low Density Option: Development activities which require a Sedimentation/Erosion Control Plan in accordance with 15A NCAC 4 established by the North Carolina Sedimentation Control Commission or approved local government programs as delegated by the Sedimentation Control Commission shall be limited to no more than either: two dwelling units of single family detached development per acre (or 20,000 square foot lot excluding roadway right-of-way) or 24 percent built-upon on area for all other residential and non-residential development; or three dwelling units per acre or 36 percent built-upon area for projects without curb and gutter street systems in the protected area outside of the critical area; Stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development activities which require a Sedimentation/Erosion Control Plan exceed the low density requirements of Sub-Item (3)(b)(i)(A) of this Rule then development shall control the runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 70 percent built-upon area;

(C) Land within the critical and protected area shall be deemed compliant with the density requirements if the following condition is met: The density of all existing development at the time of reclassification does not exceed the density requirement when densities are averaged throughout the entire area;

(D) Cluster development shall be allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Section;

(II) buffers meet the minimum statewide water supply watershed protection requirements;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state;

(VI) area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds, and;

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(E) If local governments choose the high density development option which requires engineered stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(F) Minimum 100 foot vegetative buffer is required for all new development activities that exceed the low density option requirements as specified in Sub-Item (3)(b)(i)(A) or Sub-Item (3)(b)(ii)(A) of this Rule, otherwise a minimum 30 foot vegetative buffer for development shall be required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies;

(G) No new development shall be allowed in the buffer; water dependent structures, or other structures, such as flag poles, signs and security lights, which result in only diminimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists; these activities shall minimize built-upon surface area, divert runoff away from surface waters and maximize the utilization of BMPs;

(H) For local governments that do not use the high density option, a maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on July 1, 1995 may be developed with new development projects and expansions to existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(i)(A) of this Rule. For expansions to existing development, the existing built-upon surface area shall not be counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to another local government within the watershed upon submittal of a joint resolution for review by the Commission. When the designated water supply watershed area is composed of public land, such as National Forest land, local governments may count the public land acreage within the designated watershed area outside of the critical area in figuring the acreage allowed under this provision. Each project shall, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters and incorporate best management practices to minimize water quality impacts;

(ii) Critical Area Nonpoint Source and Stormwater Pollution Control Criteria:

(A) Low Density Option: New development activities which require a Sedimentation/Erosion Control Plan in accordance with 15A NCAC 4 established by the North Carolina Sedimentation Control Commission or approved local government programs as delegated by the Sedimentation Control Commission shall be limited to no more than two dwelling units of single family detached development per acre (or 20,000 square foot lot excluding roadway right-of-way) or 24 percent built-upon area for all other residential and non-residential development; Stormwater runoff from the development shall be transported by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development density exceeds the low density requirements specified in Sub-Item (3)(b)(ii)(A) of this Rule engineered stormwater controls shall be used to control runoff from the first inch of rainfall; new residential and non-residential development shall not exceed 50 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils shall be allowed;

(D) No new landfills shall be allowed;

(c) Odor producing substances contained in sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or waste, as will not cause taste and odor difficulties in water supplies which can not be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(d) Phenolic compounds: not greater than 1.0 ug/l (phenols) to protect water supplies from taste and odor problems due to chlorinated phenols shall be allowed. Specific phenolic compounds may be given a different limit if it is demonstrated not to cause taste and odor problems and not to be detrimental to other best usage;

(e) Total hardness shall not exceed 100 mg/l as calcium carbonate;

(f) Total dissolved solids shall not exceed 500 mg/l;

(g) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-IV waters shall be allowed as follows:
(A) Barium: 1.0 mg/l;
(B) Chloride: 250 mg/l;
(C) Manganese: 200 ug/l;
(D) Nickel: 25 ug/l;
(E) Nitrate nitrogen: 10.0 mg/l;
(F) 2,4-D: 100 ug/l;
(G) 2,4,5-TP (Silvex): 10 ug/l;
(H) Sulfates: 250 mg/l;

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-IV waters shall be allowed as follows:
(A) Beryllium: 6.8 ng/l;
(B) Benzene: 1.19 ug/l;
(C) Carbon tetrachloride: 0.254 ug/l;
(D) Chlorinated benzenes: 488 ug/l;
(E) Dioxin: 0.000013 ng/l;
(F) Hexachlorobutadiene: 0.445 ug/l;
(G) Polynuclear aromatic hydrocarbons: 2.8 ng/l;
(H) Tetrachloroethane (1,1,2,2): 0.172 ug/l;
(I) Tetrachloroethylene: 0.8 ug/l;
(J) Trichloroethylene: 3.08 ug/l;
(K) Vinyl Chloride: 2 ug/l;
(L) Aldrin: 0.127 ng/l;
(M) Chlordane: 0.575 ng/l;
(N) DDT: 0.588 ng/l;
(O) Dieldrin: 0.135 ng/l;
(P) Heptachlor: 0.208 ng/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. February 1, 1986;
Amended Eff. June 1, 1996; October 1, 1995; August 1, 1995; June 1, 1994.

15A NCAC 02B .0217 STORMWATER CONTROL CRITERIA TO PROTECT WATER QUALITY STDS

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. November 1, 1986;
Repealed Eff. January 1, 1988.

15A NCAC 02B .0218 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS WS-V WATERS

The following water quality standards apply to surface water supply waters that are classified WS-V. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class WS-V waters.

(1) Best Usage of Waters. Waters protected as water supplies which are generally upstream and draining to Class WS-IV waters or waters previously used for drinking water supply purposes or waters used by industry to supply their employees, but not municipalities or counties, with a raw drinking water supply source, although this type of use is not restricted to WS-V classification. Class WS-V waters are suitable for all Class C uses. The Commission may consider a more protective classification for the water supply if a resolution requesting a more protective classification is submitted from all local governments having land use jurisdiction within the affected watershed; no categorical restrictions on watershed development or wastewater discharges are

required, however, the Commission or its designee may apply appropriate management requirements as deemed necessary for the protection of waters downstream of receiving waters (15A NCAC 2B .0203).

(2) Conditions Related to Best Usage. Waters of this class are protected water supplies; the waters, following treatment required by the Division of Environmental Health, shall meet the Maximum Contaminant Level concentrations considered safe for drinking, culinary, or food-processing purposes which are specified in the national drinking water regulations and in the North Carolina Rules Governing Public Water Supplies, 15A NCAC 18C .1500; sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard.

(3) Quality Standards Applicable to Class WS-V Waters:

(a) Sewage, industrial wastes, non-process industrial wastes, or other wastes: none which shall have an adverse effect on human health or which are not effectively treated to the satisfaction of the Commission and in accordance with the requirements of the Division of Environmental Health, North Carolina Department of Environment, Health, and Natural Resources; any discharges or industrial users subject to pretreatment standards may be required by the Commission to disclose all chemical constituents present or potentially present in their wastes and chemicals which could be spilled or be present in runoff from their facility which may have an adverse impact on downstream water supplies; these facilities may be required to have spill and treatment failure control plans as well as perform special monitoring for toxic substances;

(b) Nonpoint Source and Stormwater Pollution: none that would adversely impact the waters for use as water supply or any other designated use;

(c) Odor producing substances contained in sewage, industrial wastes, or other wastes: only such amounts, whether alone or in combination with other substances or waste, as will not cause taste and odor difficulties in water supplies which can not be corrected by treatment, impair the palatability of fish, or have a deleterious effect upon any best usage established for waters of this class;

(d) Phenolic compounds: not greater than 1.0 ug/l (phenols) to protect water supplies from taste and odor problems due to chlorinated phenols; specific phenolic compounds may be given a different limit if it is demonstrated not to cause taste and odor problems and not to be detrimental to other best usage;

(e) Total hardness: not greater than 100 mg/l as calcium carbonate;

(f) Total dissolved solids: not greater than 500 mg/l;

(g) Toxic and other deleterious substances:

(i) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for non-carcinogens in Class WS-V waters:

(A) Barium: 1.0 mg/l;
(B) Chloride: 250 mg/l;
(C) Manganese: 200 ug/l;
(D) Nickel: 25 ug/l;
(E) Nitrate nitrogen: 10.0 mg/l;
(F) 2,4-D: 100 ug/l;
(G) 2,4,5-TP (Silvex): 10 ug/l;
(H) Sulfates: 250 mg/l.

(ii) Water quality standards (maximum permissible concentrations) to protect human health through water consumption and fish tissue consumption for carcinogens in Class WS-V waters:

(A) Beryllium: 6.8 ng/l;
(B) Benzene: 1.19 ug/l;
(C) Carbon tetrachloride: 0.254 ug/l;
(D) Chlorinated benzenes: 488 ug/l;
(E) Dioxin: 0.000013 ng/l;
(F) Hexachlorobutadiene: 0.445 ug/l;
(G) Polynuclear aromatic hydrocarbons: 2.8 ng/l;
(H) Tetrachloroethane (1,1,2,2): 0.172 ug/l;
(I) Tetrachloroethylene: 0.8 ug/l;
(J) Trichloroethylene: 3.08 ug/l;

(K) Vinyl Chloride: 2 ug/l;
(L) Aldrin: 0.127 ng/l;
(M) Chlordane: 0.575 ng/l;
(N) DDT: 0.588 ng/l;
(O) Dieldrin: 0.135 ng/l;
(P) Heptachlor: 0.208 ng/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1989;
Amended Eff. October 1, 1995.

15A NCAC 02B .0219 FRESH SURFACE WATER QUALITY STANDARDS FOR CLASS B WATERS

The following water quality standards apply to surface waters that are for primary recreation, including frequent or organized swimming and are classified as Class B waters. Water quality standards applicable to Class C waters as described in Rule .0211 of this Section also apply to Class B waters.

(1) Best Usage of Waters. Primary recreation and any other best usage specified by the "C" classification;

(2) Conditions Related to Best Usage. The waters shall meet accepted standards of water quality for outdoor bathing places as specified in Item (3) of this Rule and shall be of sufficient size and depth for primary recreation purposes. Sources of water pollution which preclude any of these uses on either a short-term or long-term basis shall be considered to be violating a water quality standard;

(3) Quality standards applicable to Class B waters:

(a) Sewage, industrial wastes, or other wastes: none which are not effectively treated to the satisfaction of the Commission; in determining the degree of treatment required for such waste when discharged into waters to be used for bathing, the Commission shall consider the quality and quantity of the sewage and wastes involved and the proximity of such discharges to waters in this class; discharges in the immediate vicinity of bathing areas may not be allowed if the Director determines that the waste can not be reliably treated to ensure the protection of primary recreation;

(b) Organisms of coliform group: fecal coliforms not to exceed geometric mean of 200/100 ml (MF count) based on at least five consecutive samples examined during any 30-day period and not to exceed 400/100 ml in more than 20 percent of the samples examined during such period.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. January 1, 1990;
Amended Eff. October 1, 1995.

15A NCAC 02B .0220 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SC WATERS

General. The water quality standards for all tidal salt waters are the basic standards applicable to Class SC waters. Additional and more stringent standards applicable to other specific tidal salt water classifications are specified in Rules .0221 and .0222 of this Section.

(1) Best Usage of Waters. Aquatic life propagation and maintenance of biological integrity (including fishing, fish and functioning PNAs), wildlife, secondary recreation, and any other usage except primary recreation or shellfishing for market purposes.

(2) Conditions Related to Best Usage. The waters shall be suitable for aquatic life propagation and maintenance of biological integrity, wildlife, and secondary recreation; Any source of water pollution which precludes any of these uses, including their functioning as PNAs, on either a short-term or a long-term basis shall be considered to be violating a water quality standard.

(3) Quality standards applicable to all tidal salt waters:

(a) Chlorophyll a (corrected): not greater than 40 ug/l in sounds, estuaries, and other waters subject to growths of macroscopic or microscopic vegetation; the Commission or its designee may prohibit or limit any discharge of waste into surface waters if, in the opinion of the Director, the surface waters experience or the discharge would result in growths of microscopic or macroscopic vegetation such

that the standards established pursuant to this Rule would be violated or the intended best usage of the waters would be impaired;

(b) Dissolved oxygen: not less than 5.0 mg/l, except that swamp waters, poorly flushed tidally influenced streams or embayments, or estuarine bottom waters may have lower values if caused by natural conditions;

(c) Floating solids; settleable solids; sludge deposits: only such amounts attributable to sewage, industrial wastes or other wastes, as shall not make the waters unsafe or unsuitable for aquatic life and wildlife, or impair the waters for any designated uses;

(d) Gases, total dissolved: not greater than 110 percent of saturation;

(e) Organisms of coliform group: fecal coliforms not to exceed geometric mean of 200/100 ml (MF count) based upon at least five consecutive samples examined during any 30 day period; not to exceed 400/100 ml in more than 20 percent of the samples examined during such period; violations of the fecal coliform standard are expected during rainfall events and, in some cases, this violation is expected to be caused by uncontrollable nonpoint source pollution; all coliform concentrations are to be analyzed using the MF technique unless high turbidity or other adverse conditions necessitate the tube dilution method; in case of controversy over results the MPN 5-tube dilution method shall be used as the reference method;

(f) Oils; deleterious substances; colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation or to aquatic life and wildlife or adversely affect the palatability of fish, aesthetic quality or impair the waters for any designated uses; for the purpose of implementing this Rule, oils, deleterious substances, colored or other wastes shall include but not be limited to substances that cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines pursuant to 40 CFR 110.4(a)-(b);

(g) pH: shall be normal for the waters in the area, which generally shall range between 6.8 and 8.5 except that swamp waters may have a pH as low as 4.3 if it is the result of natural conditions;

(h) Phenolic compounds: only such levels as shall not result in fish-flesh tainting or impairment of other best usage;

(i) Radioactive substances:

  (i) Combined radium-226 and radium-228: The maximum average annual activity level (based on at least four samples, collected quarterly) for combined radium-226, and radium-228 shall not exceed five picoCuries per liter;

  (ii) Alpha Emitters. The average annual gross alpha particle activity (including radium-226, but excluding radon and uranium) shall not exceed 15 picoCuries per liter;

  (iii) Beta Emitters. The maximum average annual activity level (based on at least four samples, collected quarterly) for strontium-90 shall not exceed eight picoCuries per liter; nor shall the average annual gross beta particle activity (excluding potassium-40 and other naturally occurring radio-nuclides) exceed 50 picoCuries per liter; nor shall the maximum average annual activity level for tritium exceed 20,000 picoCuries per liter;

(j) Salinity: changes in salinity due to hydrological modifications shall not result in removal of the functions of a PNA; projects that are determined by the Director to result in modifications of salinity such that functions of a PNA are impaired will be required to employ water management practices to mitigate salinity impacts;

(k) Temperature: shall not be increased above the natural water temperature by more than 0.8 degrees C (1.44 degrees F) during the months of June, July, and August nor more than 2.2 degrees C (3.96 degrees F) during other months and in no cases to exceed 32 degrees C (89.6 degrees F) due to the discharge of heated liquids;

(l) Turbidity: the turbidity in the receiving water shall not exceed 25 NTU; if turbidity exceeds this level due to natural background conditions, the existing turbidity level shall not be increased. Compliance with this turbidity standard can be met when land management activities employ Best Management Practices (BMPs) [as defined by Rule .0202(6) of this Section] recommended by the Designated Nonpoint Source Agency (as defined by Rule .0202 of this Section). BMPs must be in full compliance with all specifications governing the proper design, installation, operation and maintenance of such BMPs;

(m) Toxic substances: numerical water quality standards (maximum permissible levels) to protect aquatic life applicable to all tidal saltwaters:

(i) Arsenic, total recoverable: 50 ug/l;

(ii) Cadmium: 5.0 ug/l; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

(iii) Chromium, total: 20 ug/l;

(iv) Cyanide: 1.0 ug/l;

(v) Mercury: 0.025 ug/l;

(vi) Lead, total recoverable: 25 ug/l; collection of data on sources, transport and fate of lead shall be required as part of the toxicity reduction evaluation for dischargers that are out of compliance with whole effluent toxicity testing requirements and the concentration of lead in the effluent is concomitantly determined to exceed an instream level of 3.1 ug/l from the discharge;

(vii) Nickel: 8.3 ug/l; attainment of these water quality standards in surface waters shall be based on measurement of total recoverable metals concentrations unless appropriate studies have been conducted to translate total recoverable metals to a toxic form. Studies used to determine the toxic form or translators must be designed according to the "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

(viii) Pesticides:

(A) Aldrin: 0.003 ug/l;

(B) Chlordane: 0.004 ug/l;

(C) DDT: 0.001 ug/l;

(D) Demeton: 0.1 ug/l;

(E) Dieldrin: 0.002 ug/l;

(F) Endosulfan: 0.009 ug/l;

(G) Endrin: 0.002 ug/l;

(H) Guthion: 0.01 ug/l;

(I) Heptachlor: 0.004 ug/l;

(J) Lindane: 0.004 ug/l;

(K) Methoxychlor: 0.03 ug/l;

(L) Mirex: 0.001 ug/l;

(M) Parathion: 0.178 ug/l;

(N) Toxaphene: 0.0002 ug/l.

(ix) Polycholorinated biphenyls: 0.001 ug/l;

(x) Selenium: 71 ug/l;

(xi) Trialkyltin compounds: 0.002 ug/l expressed as tributyltin.

(4) Action Levels for Toxic Substances: if the Action Levels for any of the substances listed in this Subparagraph (which are generally not bioaccumulative and have variable toxicity to aquatic life because of chemical form, solubility, stream characteristics or associated waste characteristics) are determined by the waste load allocation to be exceeded in a receiving water by a discharge under the specified low flow criterion for toxic substances (Rule .0206 in this Section), the discharger shall be required to monitor the chemical or biological effects of the discharge; efforts shall be made by all dischargers to reduce or eliminate these substances from

their effluents. Those substances for which Action Levels are listed in this Subparagraph may be limited as appropriate in the NPDES permit if sufficient information (to be determined for metals by measurements of that portion of the dissolved instream concentration of the Action Level parameter attributable to a specific NPDES permitted discharge) exists to indicate that any of those substances may be a causative factor resulting in toxicity of the effluent. NPDES permit limits may be based on translation of the toxic form to total recoverable metals. Studies used to determine the toxic form or translators must be designed according to: "Water Quality Standards Handbook Second Edition" published by the Environmental Protection Agency (EPA 823-B-94-005a) or "The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion" published by the Environmental Protection Agency (EPA 823-B-96-007) which are hereby incorporated by reference including any subsequent amendments. The Director shall consider conformance to EPA guidance as well as the presence of environmental conditions that limit the applicability of translators in approving the use of metal translators.

(a) Copper: 3 ug/l;
(b) Silver: 0.1 ug/l;
(c) Zinc: 86 ug/l.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1995;
Amended Eff. August 1, 2000.

15A NCAC 02B .0221 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SA WATERS

The following water quality standards apply to surface waters that are used for shellfishing for market purposes and are classified SA. Water quality standards applicable to Class SC waters as described in Rule .0220 of this Section also apply to Class SA waters.

(1) Best Usage of Waters. Shellfishing for market purposes and any other usage specified by the "SB" or "SC" classification;
(2) Conditions Related to Best Usage. Waters shall meet the current sanitary and bacteriological standards as adopted by the Commission for Health Services and shall be suitable for shellfish culture; any source of water pollution which precludes any of these uses, including their functioning as PNAs, on either a short-term or a long-term basis shall be considered to be violating a water quality standard;
(3) Quality Standards applicable to Class SA Waters:
    (a) Floating solids; settleable solids; sludge deposits: none attributable to sewage, industrial wastes or other wastes;
    (b) Sewage: none;
    (c) Industrial wastes, or other wastes: none which are not effectively treated to the satisfaction of the Commission in accordance with the requirements of the Division of Health Services;
    (d) Organisms of coliform group: fecal coliform group not to exceed a median MF of 14/100 ml and not more than 10 percent of the samples shall exceed an MF count of 43/100 ml in those areas most probably exposed to fecal contamination during the most unfavorable hydrographic and pollution conditions.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1995.

15A NCAC 02B .0222 TIDAL SALT WATER QUALITY STANDARDS FOR CLASS SB WATERS

The following water quality standards apply to surface waters that are used for primary recreation, including frequent or organized swimming, and are classified SB. Water quality standards applicable to Class SC waters are described in Rule .0220 of this Section also apply to SB waters.

(1) Best Usage of Waters. Primary recreation and any other usage specified by the "SC" classification;
(2) Conditions Related to Best Usage. The waters shall meet accepted sanitary standards of water quality for outdoor bathing places as specified in Item (3) of this Rule and will be of sufficient size and depth for primary recreation purposes; any source of water pollution which precludes any of these uses, including their

functioning as PNAs, on either a short-term or a long-term basis shall be considered to be violating a water quality standard;

(3) Quality Standards applicable to Class SB waters:

(a) Floating solids; settleable solids; sludge deposits: none attributable to sewage, industrial wastes or other wastes;

(b) Sewage; industrial wastes; or other wastes: none which are not effectively treated to the satisfaction of the Commission; in determining the degree of treatment required for such waters discharged into waters which are to be used for bathing, the Commission shall take into consideration quantity and quality of the sewage and other wastes involved and the proximity of such discharges to the waters in this class; discharges in the immediate vicinity of bathing areas may not be allowed if the Director determines that the waste can not be treated to ensure the protection of primary recreation;

(c) Organisms of coliform group: fecal coliforms not to exceed a geometric mean of 200/100 ml (MF count) based on at least five consecutive samples examined during any 30 day period and not to exceed 400/100 ml in more than 20 percent of the samples examined during such period.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*
Eff. October 1, 1995.

15A NCAC 02B .0223 NUTRIENT SENSITIVE WATERS

(a) In addition to existing classifications, the Commission may classify any surface waters of the state as nutrient sensitive waters (NSW) upon a finding that such waters are experiencing or are subject to excessive growths of microscopic or macroscopic vegetation. Excessive growths are growths which the Commission determines impair the use of the water for its best usage as determined by the classification applied to such waters.

(b) NSW may include any or all waters within a particular river basin as the Commission deems necessary to effectively control excessive growths of microscopic or macroscopic vegetation.

(c) For the purpose of this Rule, the term "nutrients" shall mean phosphorous or nitrogen or any other chemical parameter or combination of parameters which the commission determines to be contributing to excessive growths of microscopic or macroscopic vegetation.

(d) Those waters additionally classified as nutrient sensitive shall be identified in the appropriate schedule of classifications as referenced in Section .0300 of this Subchapter.

(e) Nutrient strategies applicable to NSW shall be developed by the Commission to control the magnitude, duration, or frequencies of excessive growths of microscopic or macroscopic vegetation so that the existing and designated uses of the waterbody are protected or restored.

History Note: *Authority G.S. 143-214.1; 143-215.8B;*
Eff. October 1, 1995;
Amended Eff. August 1, 2000.

15A NCAC 02B .0224 HIGH QUALITY WATERS

High Quality Waters (HQW) are a subset of waters with quality higher than the standards and are as described by 15A NCAC 2B .0101(e)(5). The following procedures shall be implemented in order to implement the requirements of Rule .0201(d) of this Section.

(1) New or expanded wastewater discharges in High Quality Waters shall comply with the following:

(a) Discharges from new single family residences shall be prohibited. Those existing subsurface systems for single family residences which fail and must discharge shall install a septic tank, dual or recirculating sand filters, disinfection and step aeration.

(b) All new NPDES wastewater discharges (except single family residences) shall be required to provide the treatment described below:

(i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD_5= 5 mg/l, NH_3-N = 2 mg/l and DO = 6 mg/l. More stringent limitations shall be set, if necessary, to ensure that the cumulative pollutant discharge of oxygen-consuming wastes shall not cause the DO of the receiving water to drop more than 0.5 mg/l below background levels, and in no case below the standard. Where background information is not readily available,

evaluations shall assume a percent saturation determined by staff to be generally applicable to that hydroenvironment.

(ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 10 mg/l for trout waters and PNA's, and to 20 mg/l for all other High Quality Waters.

(iii) Disinfection: Alternative methods to chlorination shall be required for discharges to trout streams, except that single family residences may use chlorination if other options are not economically feasible. Domestic discharges are prohibited to SA waters.

(iv) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs.

(v) Volume: The total volume of treated wastewater for all discharges combined shall not exceed 50 percent of the total instream flow under 7Q10 conditions.

(vi) Nutrients: Where nutrient overenrichment is projected to be a concern, appropriate effluent limitations shall be set for phosphorus or nitrogen, or both.

(vii) Toxic substances: In cases where complex wastes (those containing or potentially containing toxicants) may be present in a discharge, a safety factor shall be applied to any chemical or whole effluent toxicity allocation. The limit for a specific chemical constituent shall be allocated at one-half of the normal standard at design conditions. Whole effluent toxicity shall be allocated to protect for chronic toxicity at an effluent concentration equal to twice that which is acceptable under design conditions. In all instances there may be no acute toxicity in an effluent concentration of 90 percent. Ammonia toxicity shall be evaluated according to EPA guidelines promulgated in "Ambient Water Quality Criteria for Ammonia - 1984"; EPA document number 440/5-85-001; NITS number PB85-227114; July 29, 1985 (50 FR 30784) or "Ambient Water Quality Criteria for Ammonia (Saltwater) - 1989"; EPA document number 440/5-88-004; NTIS number PB89-169825. This material related to ammonia toxicity is hereby incorporated by reference including any subsequent amendments and editions and is available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 at a cost of forty-seven dollars ($47.00).

(c) All expanded NPDES wastewater discharges in High Quality Waters shall be required to provide the treatment described in Sub-Item (1)(b) of this Rule, except for those existing discharges which expand with no increase in permitted pollutant loading.

(2) Development activities which require an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or local erosion and sedimentation control program approved in accordance with 15A NCAC 4B .0218, and which drain to and are within one mile of High Quality Waters (HQW) shall be required to follow the stormwater management rules as specified in 15A NCAC 2H .1000. Stormwater management requirements specific to HQW are described in 15A NCAC 2H .1006.

(3) Listing of Waters Classified HQW with Specific Actions. Waters classified as HQW with specific actions to protect exceptional water quality are listed as follows: Thorpe Reservoir [Little Tennessee River Basin, Index No. 2-79-23-(1)] including all of its tributaries shall be managed with respect to wastewater discharges through Item (1) of this Rule. Item (2) of this Rule shall not be applied in association with this HQW because of the local government implementation of WS-III stormwater management requirements.

If an applicant objects to the requirements to protect high quality waters and believes degradation is necessary to accommodate important social and economic development, the applicant may contest these requirements according to the provisions of G.S. 143-215.1(e) and 150B-23.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. October 1, 1995;
Amended Eff. August 1, 1998; April 1, 1996.

15A NCAC 02B .0225 OUTSTANDING RESOURCE WATERS

(a) General In addition to the existing classifications, the Commission may classify unique and special surface waters of the state as outstanding resource waters (ORW) upon finding that such waters are of exceptional state or national recreational or ecological significance and that the waters have exceptional water quality while meeting the following conditions:

(1) that the water quality is rated as excellent based on physical, chemical or biological information;

(2) the characteristics which make these waters unique and special may not be protected by the assigned narrative and numerical water quality standards.

(b) Outstanding Resource Values In order to be classified as ORW, a water body must exhibit one or more of the following values or uses to demonstrate it is of exceptional state or national recreational or ecological significance:

(1) there are outstanding fish (or commercially important aquatic species) habitat and fisheries;

(2) there is an unusually high level of water-based recreation or the potential for such recreation;

(3) the waters have already received some special designation such as a North Carolina or National Wild and Scenic River, Native or Special Native Trout Waters, National Wildlife Refuge, etc, which do not provide any water quality protection;

(4) the waters represent an important component of a state or national park or forest; or

(5) the waters are of special ecological or scientific significance such as habitat for rare or endangered species or as areas for research and education.

(c) Quality Standards for ORW

(1) Freshwater: Water quality conditions shall clearly maintain and protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values shall be developed on a site specific basis during the proceedings to classify waters as ORW. At a minimum, no new discharges or expansions of existing discharges shall be permitted, and stormwater controls for all new development activities requiring an Erosion and Sedimentation Control Plan in accordance with rules established by the NC Sedimentation Control Commission or an appropriate local erosion and sedimentation control program shall be required to follow the stormwater provisions as specified in 15A NCAC 2H .1000. Specific stormwater requirements for ORW areas are described in 15A NCAC 2H .1007.

(2) Saltwater: Water quality conditions shall clearly maintain and protect the outstanding resource values of waters classified ORW. Management strategies to protect resource values shall be developed on a site-specific basis during the proceedings to classify waters as ORW. At a minimum, new development shall comply with the stormwater provisions as specified in 15A NCAC 2H .1000. Specific stormwater management requirements for saltwater ORWs are described in 15A NCAC 2H .1007. New non-discharge permits shall meet reduced loading rates and increased buffer zones, to be determined on a case-by-case basis. No dredge or fill activities shall be allowed if those activities would result in a reduction of the beds of submerged aquatic vegetation or a reduction of shellfish producing habitat as defined in 15A NCAC 3I .0101(b)(20)(A) and (B), except for maintenance dredging, such as that required to maintain access to existing channels and facilities located within the designated areas or maintenance dredging for activities such as agriculture. A public hearing is mandatory for any proposed permits to discharge to waters classified as ORW.

Additional actions to protect resource values shall be considered on a site specific basis during the proceedings to classify waters as ORW and shall be specified in Paragraph (e) of this Rule. These actions may include anything within the powers of the commission. The commission shall also consider local actions which have been taken to protect a water body in determining the appropriate state protection options. Descriptions of boundaries of waters classified as ORW are included in Paragraph (e) of this Rule and in the Schedule of Classifications (15A NCAC 2B .0302 through 2B .0317) as specified for the appropriate river basin and shall also be described on maps maintained by the Division of Water Quality.

(d) Petition Process. Any person may petition the Commission to classify a surface water of the state as an ORW. The petition shall identify the exceptional resource value to be protected, address how the water body meets the general criteria in Paragraph (a) of this Rule, and the suggested actions to protect the resource values. The Commission may request additional supporting information from the petitioner. The Commission or its designee shall initiate public proceedings to classify waters as ORW or shall inform the petitioner that the waters do not meet the criteria for ORW with an explanation of the basis for this decision. The petition shall be sent to:

Director
DENR/Division of Water Quality
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

The envelope containing the petition shall clearly bear the notation: RULE-MAKING PETITION FOR ORW CLASSIFICATION.

(e) Listing of Waters Classified ORW with Specific Actions Waters classified as ORW with specific actions to protect exceptional resource values are listed as follows:

(1) Roosevelt Natural Area [White Oak River Basin, Index Nos. 20-36-9.5-(1) and 20-36-9.5-(2)] including all fresh and saline waters within the property boundaries of the natural area shall have only new development which complies with the low density option in the stormwater rules as specified in 15A NCAC 2H .1005(2)(a) within 575 feet of the Roosevelt Natural Area (if the development site naturally drains to the Roosevelt Natural Area).

(2) Chattooga River ORW Area (Little Tennessee River Basin and Savannah River Drainage Area): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section. However, expansions of existing discharges to these segments shall be allowed if there is no increase in pollutant loading:
   (A) North and South Fowler Creeks,
   (B) Green and Norton Mill Creeks,
   (C) Cane Creek,
   (D) Ammons Branch,
   (E) Glade Creek, and
   (F) Associated tributaries.

(3) Henry Fork ORW Area (Catawba River Basin): the following undesignated waterbodies that are tributary to ORW designated segments shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section:
   (A) Ivy Creek,
   (B) Rock Creek, and
   (C) Associated tributaries.

(4) South Fork New and New Rivers ORW Area [New River Basin (Index Nos. 10-1-33.5 and 10)]: the following management strategies, in addition to the discharge requirements specified in Subparagraph (c)(1) of this Rule, shall be applied to protect the designated ORW areas:
   (A) Stormwater controls described in Subparagraph (c)(1) of this Rule shall apply within one mile and draining to the designated ORW areas;
   (B) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW shall be permitted such that the following water quality standards are maintained in the ORW segment:
      (i) the total volume of treated wastewater for all upstream discharges combined shall not exceed 50 percent of the total instream flow in the designated ORW under 7Q10 conditions;
      (ii) a safety factor shall be applied to any chemical allocation such that the effluent limitation for a specific chemical constituent shall be the more stringent of either the limitation allocated under design conditions (pursuant to 15A NCAC 2B .0206) for the normal standard at the point of discharge, or the limitation allocated under design conditions for one-half the normal standard at the upstream border of the ORW segment;
      (iii) a safety factor shall be applied to any discharge of complex wastewater (those containing or potentially containing toxicants) to protect for chronic toxicity in the ORW segment by setting the whole effluent toxicity limitation at the higher (more stringent) percentage effluent determined under design conditions (pursuant to 15A NCAC 2B .0206) for either the instream effluent concentration at the point of discharge or twice the effluent concentration calculated as if the discharge were at the upstream border of the ORW segment;
   (C) New or expanded NPDES permitted wastewater discharges located upstream of the designated ORW shall comply with the following:
      (i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/1, and NH_3-N = 2 mg/1;
      (ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 10 mg/1 for trout waters and to 20 mg/1 for all other waters;
      (iii) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;

(iv) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both.

(5) Old Field Creek (New River Basin): the undesignated portion of Old Field Creek (from its source to Call Creek) shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section.

(6) In the following designated waterbodies, no additional restrictions shall be placed on new or expanded marinas. The only new or expanded NPDES permitted discharges that shall be allowed shall be non-domestic, non-process industrial discharges. The Alligator River Area (Pasquotank River Basin) extending from the source of the Alligator River to the U.S. Highway 64 bridge including New Lake Fork, North West Fork Alligator River, Juniper Creek, Southwest Fork Alligator River, Scouts Bay, Gum Neck Creek, Georgia Bay, Winn Bay, Stumpy Creek Bay, Stumpy Creek, Swann Creek (Swann Creek Lake), Whipping Creek (Whipping Creek Lake), Grapevine Bay, Rattlesnake Bay, The Straits, The Frying Pan, Coopers Creek, Babbitt Bay, Goose Creek, Milltail Creek, Boat Bay, Sandy Ridge Gut (Sawyer Lake) and Second Creek, but excluding the Intracoastal Waterway (Pungo River-Alligator River Canal) and all other tributary streams and canals.

(7) In the following designated waterbodies, the only type of new or expanded marina that shall be allowed shall be those marinas located in upland basin areas, or those with less than 10 slips, having no boats over 21 feet in length and no boats with heads. The only new or expanded NPDES permitted discharges that shall be allowed shall be non-domestic, non-process industrial discharges.

(A) The Northeast Swanquarter Bay Area including all waters northeast of a line from a point at Lat. 35° 23′ 51″ and Long. 76° 21′ 02″ thence southeast along the Swanquarter National Wildlife Refuge hunting closure boundary (as defined by the 1935 Presidential Proclamation) to Drum Point.

(B) The Neuse-Southeast Pamlico Sound Area (Southeast Pamlico Sound Section of the Southeast Pamlico, Core and Back Sound Area); (Neuse River Basin) including all waters within an area defined by a line extending from the southern shore of Ocracoke Inlet northwest to the Tar-Pamlico River and Neuse River basin boundary, then southwest to Ship Point.

(C) The Core Sound Section of the Southeast Pamlico, Core and Back Sound Area (White Oak River Basin), including all waters of Core Sound and its tributaries, but excluding Nelson Bay, Little Port Branch and Atlantic Harbor at its mouth, and those tributaries of Jarrett Bay that are closed to shellfishing.

(D) The Western Bogue Sound Section of the Western Bogue Sound and Bear Island Area (White Oak River Basin) including all waters within an area defined by a line from Bogue Inlet to the mainland at SR 1117 to a line across Bogue Sound from the southwest side of Gales Creek to Rock Point, including Taylor Bay and the Intracoastal Waterway.

(E) The Stump Sound Area (Cape Fear River Basin) including all waters of Stump Sound and Alligator Bay from marker Number 17 to the western end of Permuda Island, but excluding Rogers Bay, the Kings Creek Restricted Area and Mill Creek.

(F) The Topsail Sound and Middle Sound Area (Cape Fear River Basin) including all estuarine waters from New Topsail Inlet to Mason Inlet, including the Intracoastal Waterway and Howe Creek, but excluding Pages Creek and Futch Creek.

(8) In the following designated waterbodies, no new or expanded NPDES permitted discharges and only new or expanded marinas with less than 10 slips, having no boats over 21 feet in length and no boats with heads shall be allowed.

(A) The Swanquarter Bay and Juniper Bay Area (Tar-Pamlico River Basin) including all waters within a line beginning at Juniper Bay Point and running south and then west below Great Island, then northwest to Shell Point and including Shell Bay, Swanquarter and Juniper Bays and their tributaries, but excluding all waters northeast of a line from a point at Lat. 35° 23′ 51″ and Long. 76° 21′ 02″ thence southeast along the Swanquarter National Wildlife Refuge hunting closure boundary (as defined by the 1935 Presidential Proclamation) to Drum Point and also excluding the Blowout Canal, Hydeland Canal, Juniper Canal and Quarter Canal.

(B) The Back Sound Section of the Southeast Pamlico, Core and Back Sound Area (White Oak River Basin) including that area of Back Sound extending from Core Sound west along Shackleford Banks, then north to the western most point of Middle Marshes and along the northwest shore of Middle Marshes (to include all of Middle Marshes), then west to Rush Point on Harker's Island, and along the southern shore of Harker's Island back to Core Sound.

(C) The Bear Island Section of the Western Bogue Sound and Bear Island Area (White Oak River Basin) including all waters within an area defined by a line from the western most point on Bear Island to the northeast mouth of Goose Creek on the mainland, east to the southwest mouth of Queen Creek, then south to green marker No. 49, then northeast to the northern most point on Huggins Island, then southeast along the shoreline of Huggins Island to the southeastern most point of Huggins Island, then south to the northeastern most point on Dudley Island, then southwest along the shoreline of Dudley Island to the eastern tip of Bear Island.

(D) The Masonboro Sound Area (Cape Fear River Basin) including all waters between the Barrier Islands and the mainland from Carolina Beach Inlet to Masonboro Inlet.

(9) Black and South Rivers ORW Area (Cape Fear River Basin) [Index Nos. 18-68-(0.5), 18-68-(3.5), 18-68-(11.5), 18-68-12-(0.5), 18-68-12-(11.5), and 18-68-2]: the following management strategies, in addition to the discharge requirements specified in Subparagraph (c)(1) of this Rule, shall be applied to protect the designated ORW areas:

(A) Stormwater controls described in Subparagraph (c)(1) of this Rule shall apply within one mile and draining to the designated ORW areas;

(B) New or expanded NPDES permitted wastewater discharges located one mile upstream of the stream segments designated ORW (upstream on the designated mainstem and upstream into direct tributaries to the designated mainstem) shall comply with the following discharge restrictions:

(i) Oxygen Consuming Wastes: Effluent limitations shall be as follows: BOD = 5 mg/l and NH_3-N = 2 mg/l;

(ii) Total Suspended Solids: Discharges of total suspended solids (TSS) shall be limited to effluent concentrations of 20 mg/l;

(iii) Emergency Requirements: Failsafe treatment designs shall be employed, including stand-by power capability for entire treatment works, dual train design for all treatment components, or equivalent failsafe treatment designs;

(iv) Nutrients: Where nutrient overenrichment is projected to be a concern, effluent limitations shall be set for phosphorus or nitrogen, or both.

(v) Toxic substances: In cases where complex discharges (those containing or potentially containing toxicants) may be currently present in the discharge, a safety factor shall be applied to any chemical or whole effluent toxicity allocation. The limit for a specific chemical constituent shall be allocated at one-half of the normal standard at design conditions. Whole effluent toxicity shall be allocated to protect for chronic toxicity at an effluent concentration equal to twice that which is acceptable under flow design criteria (pursuant to 15A NCAC 2B .0206).

(10) Lake Waccamaw ORW Area (Lumber River Basin) [Index No. 15-2]: all undesignated waterbodies that are tributary to Lake Waccamaw shall comply with Paragraph (c) of this Rule in order to protect the designated waters as per Rule .0203 of this Section.

History Note: *Authority G.S. 143-214.1;*
Eff. October 1, 1995;
Amended Eff. August 1, 2000; April 1, 1996; January 1, 1996.

15A NCAC 02B .0226 EXEMPTIONS FROM SURFACE WATER QUALITY STANDARDS

Variances from applicable standards, revisions to water quality standards or site-specific water quality standards may be granted by the Commission on a case-by-case basis pursuant to G.S. 143-215.3(e), 143-214.3 or 143-214.1. A listing of existing variances shall be maintained and made available to the public by the Division. Exemptions established pursuant to this Rule shall be reviewed as part of the Triennial Review of Water Quality Standards conducted pursuant to 40 CFR 131.10(g).

History Note: *Authority G.S. 143-214.1; 143-214.3; 143-215.3(e);*
Eff. October 1, 1995.

15A NCAC 02B .0227 WATER QUALITY MANAGEMENT PLANS

(a) In implementing the water quality standards to protect the existing uses [as defined by Rule .0202 of this Section] of the waters of the state or the water quality which supports those uses, the Commission shall develop water quality management plans on a priority basis to attain, maintain or enhance water quality throughout the state. Additional specific actions deemed necessary by the Commission to protect the water quality or the existing uses of the waters of the state shall be specified in Paragraph (b) of this Rule. These actions may include anything within the powers of the Commission. The Commission may also consider local actions which have been taken to protect a waterbody in determining the appropriate protection options to be incorporated into the water quality management plan.

(b) All waters determined by the Commission to be protected by a water quality management plan are listed with specific actions as follows:

The Lockwoods Folly River Area (Lumber River Basin), which includes all waters of the lower Lockwoods Folly River in an area extending north from the Intracoastal Waterway to a line extending from Genoes Point to Mullet Creek, shall be protected by the specific actions described in Subparagraphs (1) through (5) of this Paragraph.

(1) New development activities within 575' of the mean high water line which require a Sedimentation Erosion Control Plan or a CAMA major development permit must comply with the low density option of the coastal Stormwater Runoff Disposal Rules [as specified in 15A NCAC 2H .1005(2)(a)].

(2) New or expanded NPDES permits shall be issued only for non-domestic, non-industrial process type discharges (such as non-industrial process cooling or seafood processing discharges). A public hearing is mandatory for any proposed (new or expanded) NPDES permit to this protected area.

(3) New non-discharge permits shall be required to meet reduced loading rates and increased buffer zones, to be determined on a case-by-case basis.

(4) New or expanded marinas must be located in upland basin areas.

(5) No dredge or fill activities shall be allowed where significant shellfish or submerged aquatic vegetation bed resources occur, except for maintenance dredging, such as that required to maintain access to existing channels and facilities located within the protected area or maintenance dredging for activities such as agriculture.

History Note: *Authority G.S. 143-214.1; 143-215.8A;*
Eff. October 1, 1995;
Amended Eff. January 1, 1996.

15A NCAC 02B .0228 EFFLUENT CHANNELS

The standards of water quality contained in this Section shall not apply to waters within effluent channels, as defined in Rule .0202 of this Section, except that said waters shall be maintained at a quality which shall prevent the occurrence of offensive conditions, protect public health, and allow maintenance of the standards applicable to all downstream waters. Effluent channels shall be designated by the Director, such that the channels shall:

(1) be contained entirely on property owned (or otherwise controlled) by the discharger (to be demonstrated by the discharger);

(2) not contain natural waters except when such waters occur in direct response to rainfall events by overland runoff;

(3) be so constructed or modified as to minimize the migration of fish into said channel;

(4) be identified and designated on a case-by-case basis prior to permit issuance.

History Note: *Authority G.S. 143-214.1;*
Eff. October 1, 1995;
Amended Eff. January 1, 1996.

15A NCAC 02B .0229 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT OFFSET PAYMENTS FOR NON-TAR-PAMLICO BASIN ASSOCIATION MEMBERS

(a) All waters of the Tar-Pamlico River Basin have been supplementally classified nutrient sensitive waters (NSW) pursuant to 15A NCAC 2B .0223. The following procedures are to be implemented in accordance with 15A NCAC 2B .0223 in all waters of the Tar-Pamlico River Basin for those wastewater dischargers who are not members of the Tar-Pamlico Basin Association;

(b) Existing wastewater dischargers expanding to greater than 0.5 million gallons per day (MGD), who are not members of the Tar-Pamlico Basin Association, shall be required to offset their additional nutrient loads by funding nonpoint source control programs approved by the Division of Water Quality prior to the issuance of their NPDES permit and at each renewal. Nitrogen and phosphorus loads shall be offset at the rate of 110 percent of the cost to implement BMPs designed to reduce that same load created by expanding the discharge above 0.5 MGD. Equations for calculating the offset costs are:

(1) For an existing facility with permitted flow of less than or equal to 0.5 MGD as of December 8, 1994 expanding to greater than 0.5 MGD who is not a member of the Tar-Pamlico Basin Association:

Payment=((PF_e x (TN+TP) x 1384)-(0.5 x (TN+TP) x 1384)) x (BMP_c x 1.1) where:

Payment = the nutrient offset payment ($);

PF_e = Permitted Flow including expansion (MGD);

TN = 6 mg/l total nitrogen for domestic discharges or BAT for industrial discharges;

TP = 1 mg/l total phosphorus for domestic discharges or BAT for industrial discharges;

1384 = conversion factor;

0.5 = the permitted flow (MGD) above which payment for additional nutrient loading is required;

BMP_c = Best Management Practice cost-effectiveness rate in $/kg as set in 15A NCAC 2B .0237 of this Section;

1.1 = 110 percent of the cost for the nonpoint source controls.

(2) For an expanding facility with a permitted flow of greater than or equal to 0.5 MGD as of December 8, 1994 who is not a member of the Tar-Pamlico Basin Association:

Payment=((PF_e x (TN+TP) x 1384)-(PF x (TN+TP) x 1384)) x (BMP_c x 1.1) where:

Payment = the nutrient offset payment ($);

PF_e = Permitted Flow including expansion (MGD);

PF = Permitted Flow as of December 8, 1994 (MGD);

TN = 6 mg/l total nitrogen for domestic discharges or BAT for industrial discharges;

TP = 1 mg/l total phosphorus for domestic discharges or BAT for industrial discharges;

1384 = conversion factor;

BMP_c = Best Management Practice cost-effectiveness rate in $/kg as set in 15A NCAC 2B .0237 of this Section;

1.1 = 110 percent of the cost for the nonpoint source controls.

(c) New wastewater dischargers with permitted flows greater than or equal to 0.05 MGD, who are not members of the Tar-Pamlico Basin Association, shall be required to offset their nutrient loads by funding nonpoint source control programs approved by the Division of Water Quality prior to the issuance of their NPDES permit and at each renewal. Nitrogen and phosphorus loads shall be offset at the rate of 110 percent of the cost to implement BMPs designed to reduce that same loading created by the new discharge above 0.05 MGD. The equation for calculating the offset costs is:

Payment = PF x (TN+TP) x 1384 x (BMP_c x 1.1) where:

Payment = the nutrient offset payment ($);

PF = Permitted Flow (MGD);

TN = 6 mg/l total nitrogen for domestic discharges or BAT for industrial discharges;

TP = 1 mg/l total phosphorus for domestic discharges or BAT for industrial discharges;

1384 = conversion factor;

BMP_c = Best Management Practice cost-effectiveness rate in $/kg as set in 15A NCAC 2B .0237 of this Section;

1.1 = 110 percent of the cost for the nonpoint source controls.

(d) Existing wastewater dischargers expanding to greater than 0.5 MGD, who are not members of the Tar-Pamlico Basin Association, may petition the Commission or its designee for an exemption from Paragraph (b) of this Rule upon meeting all of the following conditions:

(1) For industrial facilities:

(A) The facility has reduced its annual average TN loading by 30 percent from its annual average 1991 TN loading or nitrogen is not part of the waste stream above background levels;

(B) The facility has reduced its annual average TP loading by 30 percent from its annual average 1991 TP loading or phosphorus is not part of the waste stream above background levels;

(C) The expansion does not result in annual average TN loading greater than 70 percent of the 1991 annual average TN load. Permit limits may be established to insure that the 70 percent load is not exceeded;

(D) The expansion does not result in annual average TP loading greater than 70 percent of the 1991 annual average TP load. Permit limits may be established to insure that the 70 percent load is not exceeded;

(E) To maintain its exemption from Paragraph (b) of this Rule, a facility must continue to meet the requirements of Subparagraph (d)(1) Parts (A) through (D) of this Rule.

(2) For municipal facilities:

(A) The facility has reduced its annual average TN loading by 30 percent from its annual average 1991 TN loading;

(B) The facility has reduced its annual average TP loading by 30 percent from its annual average 1991 TP loading;

(C) The expansion does not result in annual average TN loading greater than 70 percent of the 1991 annual average TN load. Permit limits may be established to insure that the 70 percent load is not exceeded;

(D) The expansion does not result in annual average TP loading greater than 70 percent of the 1991 annual average TP load. Permit limits may be established to insure that the 70 percent load is not exceeded;

(E) To maintain its exemption from Paragraph (b) of this Rule, a facility must continue to meet the requirements of Subparagraph (d)(2) Parts (A) through (D) of this Rule.

History Note: *Authority G.S. 143-214.1;*
Eff. April 1, 1997.

15A NCAC 02B .0230 ACTIVITIES DEEMED TO COMPLY WITH WETLANDS STANDARDS

(a) The following activities for which Section 404 permits are not required pursuant to Section 404(f)(1) of the Clean Water Act and which are not recaptured into the permitting process pursuant to Section 404(f)(2) are deemed to be in compliance with wetland standards in 15A NCAC 2B .0231 provided that they comply with the most current versions of the federal regulations to implement Section 404 (f) (US Environmental Protection Agency and US Army Corps of Engineers including 40 C.F.R. 232.3) and the Sedimentation Pollution Control Act, G.S. 113A, Article 4:

(1) normal, on-going silviculture**,** farming and ranching activities such as plowing, seeding, cultivating, minor drainage and harvesting for the production of food, fiber and forest products, or upland soil and water conservation practices, provided that relevant silvicultural activities must comply with U.S. Environmental Protection Agency and U.S. Army Corps of Engineers Memorandum to the Field entitled "Application of Best Management Practices to Mechanical Silvicultural Site Preparation Activities for the Establishment of Pine Plantations in the Southeast", November 28, 1995 which is hereby incorporated by reference including any subsequent amendments and editions;

(2) maintenance, including emergency reconstruction of recently damaged parts, of currently serviceable structures such as dikes, dams, levees, groins, riprap, breakwaters, causeways, and bridge abutments or approaches, and transportation structures**,** and other maintenance, repairs or modification to existing structures as required by the NC Dam Safety Program;

(3) construction and maintenance of farm or stock ponds or irrigation ditches. In addition, new pond construction in designated river basins with riparian buffer protection regulations also must comply with relevant portions of those regulations;

(4) maintenance of drainage ditches, provided that spoil is removed to high ground, placed on top of previous spoil, or placed parallel to one side or the other of the ditch within a distance of 20 feet and spoils are placed in a manner that minimizes damages to existing wetlands; and ditch maintenance is no greater than the original depth, length and width of the ditch;

(5) construction of temporary sediment control measures or best management practices as required by the NC Sediment and Erosion Control Program on a construction site, provided that the temporary sediment control measures or best management practices are restored to natural grade and stabilized within two months of

completion of the project and native woody vegetation is reestablished during the next appropriate planting season and maintained;

(6) construction or maintenance of farm roads, forest roads, and temporary roads for moving mining equipment where such roads are constructed and maintained in accordance with best management practices, as defined in 40 C.F.R. 232.3 (c)(6)(i-xv), to assure that flow and circulation patterns and chemical and biological characteristics of the navigable waters are not impaired, that the reach of navigable waters is not reduced, and that any adverse effects on the aquatic environment will be otherwise minimized.

(b) Where the Director determines, in consultation with the US Army Corps of Engineers or the US Environmental Protection Agency, and considering existing or projected environmental impact, that an activity is not exempt from permitting under Section 404(f), or where the appropriate Best Management Practices are not implemented and maintained in accordance with Paragraph (a) of this Rule, the Director may require restoration of the wetlands as well as imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties) and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215; 143-215.3; 143-215.6A; 143-215.6B; 143-215.6C; Temporary Adoption Eff. November 24, 1999; Eff. April 1, 2001.*

15A NCAC 02B .0231 WETLAND STANDARDS

(a) General. The water quality standards for all wetlands are designed to protect, preserve, restore and enhance the quality and uses of wetlands and other waters of the state influenced by wetlands. The following are wetland uses:

(1) Storm and flood water storage and retention and the moderation of extreme water level fluctuations;

(2) Hydrologic functions including groundwater discharge that contributes to maintain dry weather streamflow and, at other locations or times, groundwater recharge that replenishes the groundwater system;

(3) Filtration or storage of sediments, nutrients, toxic substances, or other pollutants that would otherwise adversely impact the quality of other waters of the state;

(4) Shoreline protection against erosion through the dissipation of wave energy and water velocity and stabilization of sediments;

(5) Habitat for the propagation of resident wetland-dependent aquatic organisms including, but not limited to fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages; and

(6) Habitat for the propagation of resident wetland-dependent wildlife species, including mammals, birds, reptiles and amphibians for breeding, nesting, cover, travel corridors and food.

(b) The following standards shall be used to assure the maintenance or enhancement of the existing uses of wetlands identified in Paragraph (a) of this Rule:

(1) Liquids, fill or other solids or dissolved gases may not be present in amounts which may cause adverse impacts on existing wetland uses;

(2) Floating or submerged debris, oil, deleterious substances, or other material may not be present in amounts which may cause adverse impacts on existing wetland uses;

(3) Materials producing color, odor, taste or unsightliness may not be present in amounts which may cause adverse impacts on existing wetland uses;

(4) Concentrations or combinations of substances which are toxic or harmful to human, animal or plant life may not be present in amounts which individually or cumulatively may cause adverse impacts on existing wetland uses;

(5) Hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be protected to prevent adverse impacts on:

(A) Water currents, erosion or sedimentation patterns;

(B) Natural water temperature variations;

(C) The chemical, nutrient and dissolved oxygen regime of the wetland;

(D) The movement of aquatic fauna;

(E) The pH of the wetland; and

(F) Water levels or elevations.

(6) The populations of wetland flora and fauna shall be maintained to protect biological integrity as defined at 15A NCAC 2B .0202.

History Note: *Authority G.S. 143-214.1; 143-215.3(a)(1);*

RRC Objection Eff. July 18, 1996 due to lack of statutory authority and ambiguity;
Eff. October 1, 1996.

15A NCAC 02B .0232 NEUSE RIVER BASIN- NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: BASIN NUTRIENT REDUCTION GOAL

(a) Pursuant to 1995 (Reg. Sess., 1996) N.C. Session Laws, c. 572, the Environmental Management Commission hereby establishes the goal of reducing the average annual load of nitrogen delivered to the Neuse River Estuary from point and nonpoint sources by a minimum of 30 percent of the average annual load for the period 1991 through 1995 by the year 2001. All waters of the Neuse River Basin have been supplementally classified as Nutrient Sensitive Waters (NSW) pursuant to 15A NCAC 2B .0223. The following rules shall be implemented in accordance with 15A NCAC 2B .0223 in all waters of the Neuse River Basin:

(1) Rule .0233 for protection and maintenance of riparian areas,
(2) Rule .0234 for wastewater discharges,
(3) Rule .0235 for urban stormwater management,
(4) Rules .0236 and .0238 for agricultural nitrogen reduction,
(5) Rule .0239 for nutrient management, and
(6) Rule .0240 for nitrogen offset fees.

(b) Failure to meet requirements of Rules .0233, .0234, .0235, .0236, .0238, .0239, and .0240 of this Section may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C;*
Eff. August 1, 1998.

15A NCAC 02B .0233 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following is the management strategy for maintaining and protecting existing riparian buffers in the Neuse River Basin.

(1) PURPOSE. The purpose of this Rule shall be to protect and preserve existing riparian buffers in the Neuse River Basin to maintain their nutrient removal functions.
(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:
  (a) 'Channel' means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water. (current definition in Forest Practice Guidelines Related to Water Quality, 15A NCAC 1I .0102)
  (b) 'DBH' means Diameter at Breast Height of a tree, which is measured at 4.5 feet above ground surface level.
  (c) 'Ditch or canal' means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.
  (d) 'Ephemeral (stormwater) stream' means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.
  (e) 'Forest plantation' means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.
  (f) 'High Value Tree' means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; and, for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.
  (g) 'Intermittent stream' means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be

heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water.

(h) 'Modified natural stream' means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(i) 'Perennial stream' means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(j) 'Perennial waterbody' means a natural or man-made basin that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainageway (i.e., connected by surface flow to a stream).

(k) 'Stream' means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

(l) 'Surface water' means all waters of the state as defined in G.S. 143-212 except underground waters.

(m) 'Tree' means a woody plant with a DBH equal to or exceeding five inches.

(3) APPLICABILITY. This Rule shall apply to 50-foot wide riparian buffers directly adjacent to surface waters in the Neuse River Basin (intermittent streams, perennial streams, lakes, ponds, and estuaries), excluding wetlands. Except as described in Sub-Item (4)(a)(iii) of this Rule, wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 2H .0506. The riparian buffers protected by this Rule shall be measured pursuant to Item (4) of this Rule. For the purpose of this Rule, a surface water shall be present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Riparian buffers adjacent to surface waters that do not appear on either of the maps shall not be subject to this Rule. Riparian buffers adjacent to surface waters that appear on the maps shall be subject to this Rule unless one of the following applies.

(a) EXEMPTION WHEN AN ON-SITE DETERMINATION SHOWS THAT SURFACE WATERS ARE NOT PRESENT. When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the Division or the appropriate delegated local authority. Upon request, the Division or delegated local authority shall make on-site determinations. Any disputes over on-site determinations shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if an on-site determination shows that they fall into one of the following categories.

(i) Ditches and manmade conveyances other than modified natural streams unless constructed for navigation or boat access.

(ii) Manmade ponds and lakes that are located outside natural drainage ways.

(iii) Ephemeral (stormwater) streams.

(b) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(i) A use shall be considered existing if it was present within the riparian buffer as of July 22, 1997. Existing uses shall include, but not be limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from Zone 1 except that grazed or trampled by livestock and existing diffuse flow is maintained. Grading and

revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(ii) At the time an existing use is proposed to be converted to another use, this Rule shall apply. An existing use shall be considered to be converted to another use if any of the following applies:

(A) Impervious surface is added to the riparian buffer in locations where it did not exist previously.

(B) An agricultural operation within the riparian buffer is converted to a non-agricultural use.

(C) A lawn within the riparian buffer ceases to be maintained.

(4) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a vegetated area that is undisturbed except for uses provided for in Item (6) of this Rule. The location of Zone 1 shall be as follows:

(i) For intermittent and perennial streams, Zone 1 shall begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to the surface water.

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone 1 shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water.

(iii) For surface waters within the 20 Coastal Counties (defined in 15A NCAC 2B .0202) within the jurisdiction of the Division of Coastal Management, Zone 1 shall begin at the most landward limit of:

(A) the normal high water level;

(B) the normal water level; or

(C) the landward limit of coastal wetlands as defined by the Division of Coastal Management;

and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water, whichever is more restrictive.

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for activities and uses provided for in Item (6) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.

(5) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters the Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(6) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, allowable, allowable with mitigation, or prohibited. The requirements for each category are given in Item (7) of this Rule.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	X	
Archaeological activities	X			

Bridges		X		
Dam maintenance activities	X			
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater outfalls that do not provide control for nitrogen before discharging through the riparian buffer • Excavation of the streambed in order to bring it to the same elevation as the invert of a ditch	X	X		X X
Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the new channel	X			
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2, 500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer	X	X X	X	
Fences provided that disturbance is minimized and installation does not result in removal of forest vegetation	X			
Forest harvesting - see Item (11) of this Rule				
Fertilizer application: • One-time fertilizer application to establish replanted vegetation • Ongoing fertilizer application	X			X
Grading and revegetation in Zone 2 only provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are stabilized	X			
Greenway/hiking trails		X		
Historic preservation	X			
Landfills as defined by G.S. 130A-290				X
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (4)		X		

and (5) of this Rule are established adjacent to the relocated channels • Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements or Items (4) and (5) of this Rule are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit	X		X	
Non-electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[3]		X	X	
Non-electric utility line perpendicular crossing of streams and other surface waters subject to this Rule[3]: • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer	X	X X	X X	
On-site sanitary sewage systems - new ones that use ground absorption				X
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1 [1,2,3]	X X			
Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3] • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [1] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [1, 2]	X	X		
Periodic maintenance of modified natural streams such as canals and a grassed travelway on one side of the surface water when alternative forms of maintenance access are not practical		X		

[1] Provided that, in Zone 1, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternatives evaluation by the Division.

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Rip rap shall not be used unless it is necessary to stabilize a tower.

- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

[2] Provided that poles or towers shall not be installed within 10 feet of a water body unless the Division completes a no practical alternatives evaluation.

[3] Perpendicular crossings are those that intersect the surface water at an angle between 75 degrees and 105 degrees.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Playground equipment: • Playground equipment on single family lots provided that installation and use does not result in removal of vegetation • Playground equipment installed on lands other than single-family lots or that requires removal of vegetation	X	X		
Ponds in natural drainage ways, excluding dry ponds: • New ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond		X	X	
Protection of existing structures, facilities and streambanks when this requires additional disturbance of the riparian buffer or the stream channel		X		
Railroad impacts other than crossings of streams and other surface waters subject to this Rule			X	
Railroad crossings of streams and other surface waters subject to this Rule: • Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer • Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X	
Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored	X			
Road impacts other than crossings of streams and other surface waters subject to this Rule			X	
Road crossings of streams and other surface waters subject to this Rule: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or	X	X	X	

one-third of an acre of riparian buffer				
Scientific studies and stream gauging	X			
Stormwater management ponds excluding dry ponds: • New stormwater management ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New stormwater management ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond		X	X	
Stream restoration	X			
Streambank stabilization		X		
Temporary roads: • Temporary roads that disturb less than or equal to 2,500 square feet provided that vegetation is restored within six months of initial disturbance • Temporary roads that disturb greater than 2,500 square feet provided that vegetation is restored within six months of initial disturbance • Temporary roads used for bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction	X	X X		
Temporary sediment and erosion control devices: • In Zone 2 only provided that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule • In Zones 1 and 2 to control impacts associated with uses approved by the Division or that have received a variance provided that sediment and erosion control for upland areas is addressed to the maximum extent practical outside the buffer • In-stream temporary erosion and sediment control measures for work within a stream channel	X X	X		
Underground electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[3,4]	X X			
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule:[3] • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer[3,4] • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer[3,4]	X	X		

[4] Provided that, in Zone 1, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternatives evaluation by the Division.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.

- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Vegetation management: • Emergency fire control measures provided that topography is restored • Periodic mowing and harvesting of plant products in Zone 2 only • Planting vegetation to enhance the riparian buffer • Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised • Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life • Removal of poison ivy • Removal of understory nuisance vegetation as defined in: Smith, Cherri L. 1998. Exotic Plant Guidelines. Department of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	X X X X X X X			
Water dependent structures as defined in 15A NCAC 2B .0202		X		
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the reservoir		X	X	
Water wells	X			
Wetland restoration	X			

(7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, allowable with mitigation and prohibited in Item (6) of this Rule shall have the following requirements:

(a) EXEMPT. Uses designated as exempt are allowed within the riparian buffer. Exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable. In addition, exempt uses shall meet requirements listed in Item (6) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(d) PROHIBITED. Uses designated as prohibited may not proceed within the riparian buffer unless a variance is granted pursuant to Item (9) of this Rule. Mitigation may be required as one condition of a variance approval.

(8) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the Division or to the delegated local authority. The applicant shall certify that the criteria identified in Sub-Item (8)(a) of this Rule are met. The Division or the delegated local authority shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the Division or the delegated local authority shall review the entire project and make a finding of fact as to whether the following requirements have been met in support of a "no practical alternatives" determination:

(i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (8)(a) of this Rule by either the Division or the delegated local authority. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." The Division or the delegated local authority may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program. Complete submissions shall include the following:

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;

(v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) Any disputes over determinations regarding Authorization Certificates shall be referred to the Director for a decision. The Director's decision is subject to review as provided in Articles 3 and 4 of G.S. 150B.

(9) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The Division or the appropriate delegated local authority may grant minor variances. The variance request procedure shall be as follows:

(a) For any variance request, the Division or the delegated local authority shall make a finding of fact as to whether the following requirements have been met:

(i) There are practical difficulties or unnecessary hardships that prevent compliance with the strict letter of the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with the following:

(A) If the applicant complies with the provisions of this Rule, he/she can secure no reasonable return from, nor make reasonable use of, his/her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the Division or delegated local authority shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.

(B) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.

(C) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(D) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(E) The applicant did not purchase the property after the effective date of this Rule, and then requesting an appeal.

(F) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice;

(ii) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and

(iii) In granting the variance, the public safety and welfare have been assured water quality has been protected, and substantial justice has been done.

(b) MINOR VARIANCES. A minor variance request pertains to activities that are proposed only to impact any portion of Zone 2 of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (9)(a) of this Rule by the either the Division or the delegated local authority pursuant to G.S. 153A Article 18, or G.S. 160A-Article 19. The Division or the delegated local authority may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals made by the delegated local authority shall be made to the appropriate Board of Adjustment under G.S. 160A-388 or G.S. 153A-345.

(c) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 or any portion of both Zones 1 and 2 of the riparian buffer. If the Division or the delegated local authority has determined that a major variance request meets the requirements in Sub-Item (9)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission. Preliminary findings on major variance requests shall be reviewed by the Commission within 90 days after receipt by the Director. Requests for appeals of determinations that the requirements of Sub-Item (9)(a) of this Rule have not been met shall be made to the Office of Administrative Hearings for determinations made by the Division or the appropriate Board of Adjustments under G.S. 160A-388 or G.S. 153A-345 for determinations made by the delegated local authority. The purpose of the Commission's review is to determine if it agrees that the requirements in Sub-Item (9)(a) of this Rule have been met. Requests for appeals of decisions made by the Commission shall be made to the Office of Administrative Hearings. The following actions shall be taken depending on the Commission's decision on the major variance request:

(i) Upon the Commission's approval, the Division or the delegated local authority shall issue a final decision granting the major variance.

(ii) Upon the Commission's approval with conditions or stipulations, the Division or the delegated local authority shall issue a final decision, which includes these conditions or stipulations.

(iii) Upon the Commission's denial, the Division or the delegated local authority shall issue a final decision denying the major variance.

(10) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (8) of this Rule.

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 2B .0242.

(11) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices.

(a) The following measures shall apply in the entire riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Access roads and skid trails shall be prohibited except for temporary and permanent stream crossings established in accordance with 15A NCAC 1I .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed.

(iii) Timber felling shall be directed away from the stream or water body.

(iv) Skidding shall be directed away from the stream or water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts.

(v) Individual trees may be treated to maintain or improve their health, form or vigor.

(vi) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site. The Division of Forest Resources must notify the Division of all approvals.

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(ix) High intensity prescribed burns shall not be allowed.

(x) Application of fertilizer shall not be allowed except as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stand shall be conducted so that the chemicals are not applied directly to or allowed to drift into the riparian buffer.

(b) In Zone 1, forest vegetation shall be protected and maintained. Selective harvest as provided for below is allowed on forest lands that have a deferment for use value under forestry in accordance with G.S. 105-277.2 through G.S. 277.6 or on forest lands that have a forest management plan prepared or approved by a registered professional forester. Copies of either the approval of the deferment for use value under forestry or the forest management plan shall be produced upon request. For such forest lands, selective harvest is allowed in accordance with the following:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 1I .0203.

(ii) Soil disturbing site preparation activities are not allowed.

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(iv) The following provisions for selective harvesting shall be met:

(A) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut.

(B) In the outer 20 feet of Zone 1, a maximum of 50 percent of the trees greater than five inches dbh may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations where the reentry time shall be no more frequent than every five years. In either case, the trees remaining after harvest shall be as evenly spaced as possible.

(C) In Zone 2, harvesting and regeneration of the forest stand shall be allowed provided that sufficient ground cover is maintained to provide for diffusion and infiltration of surface runoff.

(12) REQUIREMENTS SPECIFIC TO LOCAL GOVERNMENTS WITH STORMWATER PROGRAMS FOR NITROGEN CONTROL. Local governments that are required to have local stormwater programs pursuant to 15A NCAC 2B .0235 shall have two options for ensuring protection of riparian buffers on new developments within their jurisdictions as follows.

(a) Obtain authority to implement a local riparian buffer protection program pursuant to 15A NCAC 2B .0241.

(b) Refrain from issuing local approvals for new development projects unless either:

(i) The person requesting the approval does not propose to impact the riparian buffer of a surface water that appears on either the most recent versions of the soil survey maps prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent versions of the 1:24,000 scale (7.5 minute quadrangle) topographic maps prepared by the United States Geologic Survey (USGS).

(ii) The person requesting the approval proposes to impact the riparian buffer of a surface water that appears on the maps described in Sub-Item (12)(b)(i) of this Rule and either:

(A) Has received an on-site determination from the Division pursuant to Sub-Item (3)(a) of this Rule that surface waters are not present;

(B) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule for uses designated as Allowable under this Rule;

(C) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule and obtained the Division's approval on a mitigation plan pursuant to Item (10) of this Rule for uses designated as Allowable with Mitigation under this Rule; or

(D) Has received a variance from the Commission pursuant to Item (9) of this Rule.

(13) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1995, c. 572;*
Temporary Adoption Eff. July 22, 1997;
Temporary Adoption Eff. June 22, 1999; April 22, 1998; January 22, 1998;
Eff. August 1, 2000.

15A NCAC 02B .0234 NEUSE RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: WASTEWATER DISCHARGE REQUIREMENTS

The following is the National Pollutant Discharge Elimination System (NPDES) wastewater discharge management strategy for the Neuse River Basin:

(1) All new and expanding dischargers shall document that all practical alternatives to surface water discharge were evaluated pursuant to 15A NCAC 2H .0105(c)(2), prior to a submittal of an application for a discharge. For purposes of this Rule, permitted discharges means those individually permitted and not those covered under general permits.

(2) All wastewater dischargers greater than or equal to 0.5 million gallons per day (MGD) permitted flow regardless of current loading levels shall evaluate and optimize the operation of their facilities in order to reduce nutrient loadings. One year after the effective date of this Rule, a report shall be submitted to the division by each wastewater discharger or collectively by an Association, documenting the efforts/level of reductions achieved.

(3) The collective total nitrogen load for all individually permitted wastewater discharges shall, on an annual mass basis, be no more than 2.8 million pounds per year, unless individual wastewater discharges separately or collectively purchase a portion of the nonpoint source allocation in accordance with the formula for offset payments set forth in 15A NCAC 2B .0240. Items (5), (6) and (7) of this Rule indicate how this load is allocated in the basin. Compliance with the 2.8 million pounds annual average mass load of total nitrogen shall be required within five years of the effective date of this Rule. If dischargers individually choose to make nutrient offset payments per Rule .0240 of this Section, those offset payments shall be required prior to permit issuance and reissuance. Nutrient offset payments made to purchase nitrogen load reductions from nonpoint sources shall not be credited to the existing nonpoint source's load allocation.

(4) Any existing individual discharger or collective group of wastewater dischargers that accepts wastewater from another wastewater treatment facility in the Neuse River Basin and that results in the elimination of the discharge from that wastewater treatment facility shall be allowed to increase the annual mass load of total nitrogen discharged by the annual mass load of total nitrogen allocated to the wastewater treatment facility that is eliminated. If the wastewater treatment system that is to be eliminated has a permitted flow of less than 0.5 MGD, the annual mass load of total nitrogen shall be calculated from the most recent available data on that facility.

(5) The individually permitted wastewater discharges to the Neuse River basin with permitted flows of less than 0.5 MGD in 1995 shall be allocated an annual average mass load of 280,000 pounds of total nitrogen. All existing facilities above Falls Lake Dam with permitted flows greater than or equal to 0.05 MGD shall meet a quarterly average total phosphorus limit of 2 mg/l. More stringent limits may apply to protect water quality standards in localized areas.

(6) The following Sub-Item specifies the nutrient allocations for discharges above Falls Lake with permitted flows greater than or equal to 0.5 MGD in 1995.

(a) The individually permitted discharges above Falls Lake Dam with permitted flows of greater than or equal to 0.5 MGD in 1995 shall be allocated an annual average mass load of 444,000 pounds of total

nitrogen. The estimate of the total nitrogen load discharged through the Falls Lake Dam to the lower Neuse River shall be 15 percent, or 66,600 pounds annual average total nitrogen discharged to the lower Neuse River. The load shall be allocated to the individual facilities based upon the ratio of their 1995 permitted flow to the total permitted flow of those dischargers greater than or equal to 0.5 MGD above the Falls Lake Dam.

(b) All existing facilities above Falls Lake Dam with permitted flows greater than or equal to 0.05 MGD shall meet a quarterly average total phosphorus limit of 2 mg/l. More stringent limits may apply to protect water quality standards in localized areas.

(7) The following Sub-Item specifies the nutrient allocations for discharges below Falls Lake with permitted flows greater than or equal to 0.5 MGD in 1995.

(a) Wastewater treatment plants below Falls Lake Dam that have a permitted flow greater than or equal to 0.5 MGD shall be assigned an annual mass loading limit for total nitrogen based upon the ratio of their flow to the sum of the individual flows as set forth in Sub-item (7)(b) of this Rule multiplied by 2.45 million pounds within five years of the effective date of this Rule.

(b) For purposes of the above calculation the flows shall be: Central Johnston County 4.99 MGD, Raleigh 60 MGD, Clayton 1. 9 MGD, Burlington Industries 5 MGD, Cary-Northside 12 MGD, Wake Forest 6 MGD, Cary-Southside 16 MGD, Apex 3.6 MGD, Fuquay-Varina 6 MGD, Benson 3 MGD, Goldsboro 16.8 MGD, Kinston-Peachtree 6.75 MGD, LaGrange 0.75 MGD, Kinston-Northside 4.5 MGD, Dupont-Kinston 3.6 MGD, Kenly 0.63 MGD, Wilson 14 MGD, Contentnea Sewerage District 2.85, Farmville 3.5 MGD, Zebulon 1.85 MGD, Weyerhaeuser 32 MGD, New Bern 4.7 MGD, Havelock 1.9 MGD, US Marine Corps Cherry Point 3.5 MGD, CWS Inc. NE Craven Utilities 1 MGD, and Snow Hill 0.5 MGD.

(c) All existing facilities below Falls Lake Dam with permitted flows greater than or equal to 0.5 MGD shall meet a quarterly average total phosphorus limit of 2 mg/l. Upon expansion, these facilities must meet a monthly average total phosphorous limit of 1 mg/l. More stringent limits may apply to protect water quality standards in localized areas.

(8) All new wastewater discharge flows, flows not permitted prior to December 31, 1995, shall document efforts to obtain allocation from the load established in Item (3) of this Rule from existing wastewater discharges. If allocation can not be obtained from the existing dischargers, new dischargers may purchase a portion of the nonpoint source load allocation at a rate of 200 percent of the cost as set in 15A NCAC 2B .0240 to implement practices designed to reduce that same loading created by the new discharge. Payment for the portion of the nonpoint source load allocation purchased shall be made prior to permit issuance and reissuance. The new discharge shall at a minimum comply with an annual mass load of total nitrogen based on a concentration of 3.5 mg/l and their permitted flow. These facilities must meet a monthly average total phosphorous limit of 1 mg/l. More stringent limits may be given to protect water quality standards in localized areas.

(9) The following Sub-Item describes the option for dischargers to join an Association to collectively meet nutrient load allocations.

(a) All dischargers within the basin may form an Association to meet their allocated total nitrogen load collectively. For dischargers that join the Association, an agreement shall be drafted between the Division and the Association that includes annual loading targets. The total nitrogen load allocated to the Association shall be calculated by the sum of the individual allocated loads developed in Items (5), (6) and (7) of this Rule. The membership of the Association shall be established no later than March 1, 1998. All facilities who apply for membership in the Association prior to March 1, 1998 shall be accepted. Thereafter, the Division shall accept new members in the Association on every five-year anniversary of March 1, 1998 based on applications for membership received before that date from facilities existing as of the effective date of this Rule.

(b) This annual total nitrogen loading target shall be met within five years of the effective date of this Rule. The agreement may also require stepwise decreases in total nitrogen loads for the five years following the effective date of this Rule. When developing a final agreement, the Commission shall acknowledge the differences in transport percentages between dischargers above and below Falls Lake Dam. The Association shall also document reduction in total nitrogen loadings for any member facilities located in Craven, Jones, Pamlico and Carteret Counties as a result of their immediate proximity to the estuary. If the Association does not meet its annual total nitrogen loading target in any given year, the Association shall make payments for nonpoint source controls at a rate as set in

15A NCAC 2B .0240. No Association exists, for the purposes of this Rule, until the Agreement is formally approved by the Commission.

(c) All existing Association dischargers below Falls Lake Dam that have a permitted flow greater than or equal to 0.5 MGD shall receive a quarterly average total phosphorus limit of 2 mg/l in their NPDES permits. All existing Association dischargers above Falls Lake Dam that have a permitted flow greater than or equal to 0.05 MGD shall receive a quarterly average total phosphorus limit of 2 mg/l in their NPDES permits. New and expanding Association dischargers shall receive a quarterly average total phosphorus limit of 2 mg/l in their NPDES permits. More stringent phosphorous limits may apply to protect water quality standards in localized areas.

History Note: *Authority G.S. 143-214.1; 143-215; 143-215.1; 143-215.3(a)(1); S.L. 1995, c. 572;*
Temporary Adoption Eff. January 22, 1998;
Eff. August 1, 1998;
Temporary Amendment Eff. March 15, 2000;
Temporary Amendment Expired on December 10, 2000.

15A NCAC 02B .0235 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: BASINWIDE STORMWATER REQUIREMENTS

The following is the urban stormwater management strategy for the Neuse River Basin:

(1) The following local governments shall be designated, based on population and other factors, for stormwater management requirements as part of the Neuse River Nutrient Sensitive Waters stormwater management strategy:
- (a) Cary,
- (b) Durham,
- (c) Garner,
- (d) Goldsboro,
- (e) Havelock,
- (f) Kinston,
- (g) New Bern,
- (h) Raleigh,
- (i) Smithfield,
- (j) Wilson
- (k) Durham County,
- (l) Johnston County,
- (m) Orange County,
- (n) Wake County, and
- (o) Wayne County.

(2) Other incorporated areas and other counties, not listed under Item (1) of this Rule, may seek to implement their own local stormwater management plan by complying with the requirements specified in Items (5), (6) and (7) of this Rule.

(3) The Environmental Management Commission may designate additional local governments by amending this Rule based on their potential to contribute significant nutrient loads to the Neuse River. At a minimum, the Commission shall review the need for additional designations to the stormwater management program as part of the basinwide planning process for the Neuse River Basin. Any local governments that are designated at a later date under the Neuse Nutrient Sensitive Waters Stormwater Program shall meet the requirements under Items (5), (6) and (7) of this Rule.

(4) Within 12 months of the effective date of this Rule, the Division of Water Quality shall submit a model local stormwater management program plan to control nutrients to the Commission for approval. The Division shall work in cooperation with subject local governments in developing this model plan. The model plan shall address nitrogen reductions for both existing and new development and include, but not be limited to, the following elements:
- (a) Review and approval of stormwater management plans for new developments to ensure that:
  - (i) the nitrogen load contributed by new development activities is held at 70 percent of the average nitrogen load contributed by the 1995 land uses of the non-urban areas of the Neuse River Basin. The local governments shall use a nitrogen export standard of 3.6 pounds/acre/year, determined by the Environmental Management Commission as 70

percent of the average collective nitrogen load for the 1995 non-urban land uses in the basin above New Bern. The EMC may periodically update the design standard based on the availability of new scientific information. Developers shall have the option of partially offsetting their nitrogen loads by funding wetland or riparian area restoration through the North Carolina Wetland Restoration Fund at the rate specified in Rule .0240 of this Section. However, before using offset payments, the development must attain, at a minimum, a nitrogen export that does not exceed 6 pounds/acre/year for residential development and 10 pounds/acre/year for commercial or industrial development.

(ii) there is no net increase in peak flow leaving the site from the predevelopment conditions for the 1-year, 24-hour storm.

(b) Review of new development plans for compliance with requirements for protecting and maintaining existing riparian areas as specified in 15A NCAC 2B .0233;

(c) Implementation of public education programs;

(d) Identification and removal of illegal discharges;

(e) Identification of suitable locations for potential stormwater retrofits (such as riparian areas) that could be funded by various sources; and

(f) Submittal of an annual report on October 30 to the Division documenting progress on and net changes to nitrogen load from the local government's planning jurisdiction.

(5) Within 12 months of the EMC's approval of the model local government stormwater program or later designation (as described in Item (3) of this Rule), subject local governments shall submit their local stormwater management program plans to the Commission for review and approval. These local plans shall equal or exceed the requirements in Item (4) of this Rule. Local governments may submit a more stringent local stormwater management program plan. Local stormwater management programs and modifications to these programs shall be kept on file by the Division of Water Quality.

(6) Within 18 months of the EMC's approval of the model local government stormwater program or designation, subject local governments shall adopt and implement a local stormwater management program according to their approved plan. Local governments administering a stormwater management program shall submit annual reports to the Division documenting their progress and net changes to nitrogen load by October 30 of each year.

(7) If a local government fails to submit an acceptable local stormwater management program plan within the time frames established in this Rule or fails to properly implement an approved plan, then stormwater management requirements for existing and new urban areas within its jurisdiction shall be administered through the NPDES municipal stormwater permitting program per 15A NCAC 2H .0126.

(a) Subject local governments shall develop and implement comprehensive stormwater management programs, tailored toward nitrogen reduction, for both existing and new development.

(b) These stormwater management programs shall provide all components that are required of local government stormwater programs in Sub-items (4)(a)-(f) of this Rule.

(c) Local governments that are subject to an NPDES permit shall be covered by the permit for at least one permitting cycle (five years) before they are eligible to submit a local stormwater management program for consideration and approval by the EMC.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.1; 143-215.3(a)(1); S.L. 1995, c. 572; Eff. August 1, 1998.*

15A NCAC 02B .0236 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NITROGEN LOADING REDUCTION

All persons engaging in agricultural operations in the Neuse River Basin, including those related to crops, livestock, and poultry, shall collectively achieve and maintain a 30 percent net total nitrogen loading reduction from the cumulative average 1991-1995 nitrogen loadings. In addition to requirements set forth in general permits for animal operations issued pursuant to G.S. 143-215.10C, these Rules apply to all livestock and poultry operations, regardless of size, in the Neuse River Basin. A management strategy to achieve this reduction is specified in Rule .0238 of this Rule.

History Note: *Authority G.S. 143.214.1; 143.214.7; 143.215.3(a)(1).*

Eff. August 1, 1998.

15A NCAC 02B .0237 BEST MANAGEMENT PRACTICE COST-EFFECTIVENESS RATE

The Best Management Practice cost-effectiveness rate (BMPc) represents the cost to achieve a reduction of one kilogram of total nitrogen through the use of BMPs. This rate shall be used for determining cost of nutrient controls and shall be twenty-nine dollars per kilogram ($29/kg).

History Note: *Authority G.S. 143-214.1;*
Eff. April 1, 1997.

15A NCAC 02B .0238 NEUSE RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NITROGEN REDUCTION STRATEGY

The following requirements apply to all persons in the Neuse River Basin who engage in agricultural operations. Agricultural operations are activities which relate to the production of crops, livestock, and poultry.

(1) All persons engaging in agricultural operations in the Neuse River Basin shall collectively achieve and maintain a 30 percent net total nitrogen loading reduction from the cumulative average 1991-1995 nitrogen loadings within five years from the effective date of this Rule. Persons subject to this Rule are provided with two options for meeting the requirements of this Rule. The first option is to sign-up for and participate in implementing a collective local strategy for agricultural nitrogen reduction as described in Item (7) of this Rule. This option allows site-specific plans to be developed for those operations where further nitrogen reduction practices are necessary to achieve the collective reduction goal. The second option requires the implementation of standard Best Management Practices as specified in Item (8) of this Rule. Failure to meet requirements of this Rule may result in imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(2) Formation and membership of the Basin Oversight Committee. The Environmental Management Commission shall delegate to the Secretary of the Department of Environment and Natural Resources the responsibility of forming a Basin Oversight Committee.

(a) The Secretary shall solicit one nomination for membership on this Committee from each of the following agencies:

(i) Division of Soil and Water Conservation,

(ii) United States Department of Agriculture- Natural Resources Conservation Service,

(iii) North Carolina Department of Agriculture,

(iv) North Carolina Cooperative Extension Service, and

(v) Division of Water Quality.

(b) The Secretary shall also solicit one nomination that represents environmental interests, one nomination that represents agricultural interests, and one from the scientific community with experience related to water quality problems in the Neuse River Basin.

(c) The Secretary, Department of Environment and Natural Resources, shall appoint members of the Basin Oversight Committee from the nominees provided in Sub-Items (2)(a) and (2)(b) of this Rule. Members shall be appointed for a term not to exceed five years and shall serve at the pleasure of the Secretary. The United States Department of Agriculture-Natural Resources Conservation Service member shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee.

(3) Role of the Basin Oversight Committee. The Environmental Management Commission shall delegate the following responsibilities to the Basin Oversight Committee.

(a) Develop a tracking and accounting methodology, as described below, for evaluating total nitrogen loading from agricultural operations and progress toward reaching the total nitrogen net loading reduction from the implementation BMPs within the Neuse River Basin. The accountability methodology must demonstrate how the nitrogen loading reduction can be met collectively by implementing best management practices approved by the Soil and Water Conservation Commission

that include, but are not limited to, water control structures, riparian area establishment, and nutrient management.

(b) Submit a draft accountability process in accordance with the requirements in Sub-Items (3)(a) and (3)(c) of this Rule to the Environmental Management Commission for review within six months after the effective date of the rule and the final accountability process to the Environmental Management Commission for approval within one year after the effective date of the rule. The Environmental Management Commission shall approve the accountability process if it meets requirements in Sub-Items (3)(a) and (3)(c) of this Rule. If the Basin Oversight Committee fails to submit an approvable accountability process to the Environmental Management Commission, then the Environmental Management Commission may accept alternative accountability process proposals within 15 months of the effective date of this Rule. If the Environmental Management Commission fails to receive an approvable accountability process, then the Environmental Management Commission may require all agricultural operations to follow the standard Best Management Practices option as specified in Item (8) of this Rule.

(c) Include in the accountability process a method to accurately track implementation of BMPs, including location and type of BMPs; to estimate nitrogen reductions from BMP implementation; to quantify increases or decreases in nitrogen loading due to changes in land use, modified agricultural activity, or atmospheric nitrogen loading, based on the best available scientific information; to ensure operation and maintenance of BMPs, including year round management for water control structures; to address life expectancy of BMPs; and a method to ensure maintenance of the nitrogen net loading reduction after the initial five years of this Rule, including substitute BMPs to replace expired practices and additional BMPs to offset new sources of nitrogen.

(d) Calculate a separate total nitrogen loading for agricultural lands in the Neuse River Basin above and below New Bern based on the average of 1991-1995 conditions. Based on this loading, calculate a separate 30 percent net reduction. Loading calculations must include atmospheric emissions and deposition of nitrogen from agricultural lands based on the best available scientific information. Allocate to counties or watersheds, as allowed in Sub-Item (4)(a) of this Rule, within the Neuse River Basin their portion of the calculated nitrogen loading reduction from agricultural operations, including any division of the reduction between specific categories of agricultural operations. Each county or watershed may not have to reduce individually its nitrogen loading by 30 percent; however, the nitrogen loading reduction from all counties or watershed above New Bern shall collectively meet their total nitrogen reduction and all counties or watersheds below New Bern shall collectively meet their total nitrogen reduction. If the Basin Oversight Committee fails to allocate the nitrogen loading reductions from agricultural operations to counties or watersheds within the Neuse River Basin, the Environmental Management Commission may assign the agricultural nitrogen reductions based on the approved accountability process as described in Sub-Items (3)(a) and (3)(c) of this Rule.

(e) Review, approve and summarize county nitrogen reduction strategies and present these strategies to the Environmental Management Commission for approval within two years from the effective date of this Rule.

(f) Review, approve and summarize local nitrogen reduction annual reports and present these reports to the Environmental Management Commission each October. Information to be included in the Annual Report is described in Item (5)(d) of this Rule.

(4) Formation and membership of the Local Advisory Committees. The Environmental Management Commission shall delegate to the Directors of the Division of Water Quality and Division of Soil and Water Conservation the responsibility of forming Local Advisory Committees.

(a) The Directors shall form Local Advisory Committees in each county (or watershed specified by the Basin Oversight Committee) within the Neuse River Basin. The Directors shall solicit nominations for membership on the Local Advisory Committee from each of the following local agencies:

(i) Soil and Water Conservation District,

(ii) United States Department of Agriculture- Natural Resources Conservation Service,

(iii) North Carolina Department of Agriculture,

(iv) North Carolina Cooperative Extension Service,

(v) North Carolina Division of Soil and Water Conservation, and

(vi) The Directors shall also solicit at least two nominations that represents a local farmer in the county watershed.

The Soil and Water Conservation District may be designated by the Basin Oversight Committee as the lead agency on the Local Advisory Committee.

(b) The Environmental Management Commission and Soil and Water Conservation Commission shall appoint members of Local Advisory Committee from the nominees provided in Sub-Item (4)(a) of this Rule and shall be appointed for a term not to exceed five years and shall serve at the pleasure of the Commissions.

(5) Role of the Local Advisory Committees. The Environmental Management Commission shall delegate the following responsibilities to employees of the Department who are members of the Local Advisory Committees and employees of the Division of Soil and Water Conservation or its designee. These employees shall act with advice from the Local Advisory Committees.

(a) Conduct a sign-up process for persons wishing to voluntarily implement the local nitrogen reduction strategy as specified in Item (7) of this Rule. This sign-up process shall be completed within one year following the effective date of this Rule.

(b) Develop local nitrogen reduction strategies that meet the nitrogen loading reduction goal for agricultural operations assigned by the Basin Oversight Committee. The local strategies shall be designed to achieve the required nitrogen loading reduction within five years from the effective date of this Rule. A matrix of best management practice options, which account for stream order, floodplain width, and regional variations in soil types and topography, may be used in developing the local nitrogen reduction strategies. Local nitrogen reduction strategies must specify the name and location of participant agricultural farming operations, BMPs which will be required as part of the plan, estimated nitrogen reduction, schedule for BMP implementation, and operation and maintenance requirements. If the Local Advisory Committee fails to develop the local nitrogen reduction strategy, the Environmental Management Commission may develop the strategy based on the tracking and accounting method approved by the Environmental Management Commission.

(c) Submit an annual report to the Basin Oversight Committee each May on net total nitrogen loading reductions from agricultural operations, the implementation of BMPs for nitrogen control, and progress towards the total nitrogen loading reduction requirements in the Neuse River Basin above and below New Bern.

(d) Include in the annual report, at a minimum, documentation on the BMPs implemented (including type and location), their costs, documentation of any expired contracts for BMPs, estimated nitrogen net loading reductions achieved as a result of those BMPs, any increases or decreases in nitrogen loading resulting from changes in land use or modified agricultural-related activity, discussion of operation and maintenance of BMPs, and a summary of the estimated load from agricultural operations for the previous year, and any modifications to the accounting methodology. Information shall be provided in the annual report on the status of BMP implementation and estimated total nitrogen reduction by all agricultural operations within the Neuse River Basin in each county or watershed. The annual report shall also be summarized separately for cropland, livestock and poultry activities.

(6) Options for meeting the collective total nitrogen net loading reduction requirement. Each agricultural operation in the Neuse River Basin shall have two options for meeting the requirements of this Rule. The options are to either implement a local nitrogen reduction strategy, specified by Item (7) of this Rule, or implement standard Best Management Practices specified by Item (8) of this Rule.

(7) Local nitrogen reduction strategy option. All persons subject to this Rule that choose to implement the county nitrogen reduction plan must complete the sign-up process that will be conducted per the requirements of Item (5)(a) of this Rule. This sign-up process will be completed within one year from the effective date of this Rule. If a person subject to this Rule does not complete the sign-up process, he shall be subject to implementation of Best Management Practices as specified in Item (8) of this Rule. Persons who choose to participate in the local nitrogen reduction strategy must commit and implement their portion of the plan within five years of the effective date of this Rule. A person may withdraw from the local nutrient reduction strategy up until the time that the local strategy is finalized by the Local Advisory Committee and the person signs the specific plan for his property, which represents his commitment to implement the plan within five years of the effective date of the rules. After a person has made the commitment to implement the local strategy by signing the plan for his property, then such persons may not withdraw from the local nitrogen reduction strategy during the initial five-year period. The local nitrogen reduction strategy is not required to be more stringent than the standard best

management practice option provided that the net nitrogen reduction goals are met collectively; however, the Local Advisory Committees may develop strategies that achieve reductions of greater than 30 percent.

(8) Standard best management practice option. If a person subject to this Rule does not complete the sign-up process for implementation of the local nitrogen reduction strategy, then he shall implement the following best management practices within four years following the effective date of this Rule.

(a) A forested riparian area, as described in Sub-Item (8)(a)(i)-(ii) of this Rule, is required on all sides of surface waters in the Neuse River Basin (intermittent streams, perennial streams, lakes, ponds and estuaries) as indicated on the most recent versions of U.S.G.S. 1:24,000 scale (7.5 minute quadrangle) topographic maps or other site-specific evidence. Design and installation of the forested riparian area shall be such that, to the maximum extent possible, sheet flow of surface water is achieved. Any activities that would result in water quality standard violations or disrupt the structural or functional integrity of the forested riparian area are prohibited. The protected riparian area shall have two zones as follows:

(i) Zone 1 shall be undisturbed forest. Zone 1 begins at the top of bank for intermittent streams and perennial streams without tributaries and extends landward a distance of 30 feet on each side of the waterbody, measured horizontally on a line perpendicular to the waterbody. For all other waterbodies, Zone 1 begins at the top of bank or the mean high water line and extends landward a distance of 30 feet, measured horizontally on a line perpendicular to the waterbody. Forest vegetation of any width that exists in Zone 1 as of July 22, 1997 must be preserved and maintained in accordance with Sub-Items (8)(a)(i)(A)-(E) of this Rule. The application of fertilizer in Zone 1 is prohibited. The following practices and activities are allowed in Zone 1:

(A) Natural regeneration of forest vegetation and planting vegetation to enhance the riparian area if disturbance is minimized, provided that any plantings shall primarily consist of locally native trees and shrubs;

(B) Selective cutting of individual trees of high value in the outer 20 feet of Zone 1, provided that the basal area of this outer 20-foot wide area remains at or above 75 square feet per acre and is computed according to the following method. Basal area of this outer 20-foot wide area shall be computed every 100 feet along the stream to ensure even distribution of forest vegetation and shall be based on all trees measured at 4.5 feet from ground level. No tracked or wheeled equipment is allowed in Zone 1 except at stream crossings which are designed, constructed and maintained in accordance with Forest Practice Guidelines Related to Water Quality (15A NCAC 1J .0201 - .0209);

(C) Horticulture or silvicultural practices to maintain the health of individual trees;

(D) Removal of individual trees which are in danger of causing damage to dwellings, other structures, or the stream channel; and

(E) Removal of dead trees and other timber cutting techniques necessary to prevent extensive pest or disease infestation if recommended by the Director, Division of Forest Resources and approved by the Director, Division of Water Quality.

(ii) Zone 2: begins at the outer edge of Zone 1 and extends landward a minimum of 20 feet as measured horizontally on a line perpendicular to the waterbody. The combined minimum width of Zones 1 and 2 shall be 50 feet on all sides of the waterbody. Vegetation in Zone 2 shall consist of a dense ground cover composed of herbaceous or woody species which provides for diffusion and infiltration of runoff and filtering of pollutants. The following practices and activities are allowed in Zone 2 in addition to those allowed in Zone 1: Periodic mowing and removal of plant products such as timber, nuts, and fruit is allowed on a periodic basis provided the intended purpose of the riparian area is not compromised by harvesting, disturbance, or loss of forest or herbaceous ground cover. Forest vegetation in Zone 2 may be managed to minimize shading on adjacent land outside the riparian area if the water quality function of the riparian area is not compromised.

(iii) The following practices and activities are not allowed in Zone 1 and Zone 2:

(A) Land disturbing activities and placement of fill and other materials, other than those allowed in Items (8)(a)(i) and (8)(b) of this Rule;

(B) New development;

(C) New on-site sanitary sewage systems which use ground absorptions;

(D) Any activity that threatens the health and function of the vegetation including, but not limited to, application of fertilizer or chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.

(iv) Timber removal and skidding of trees in the riparian area shall be directed away from the water course or water body. Skidding shall be done in a manner to prevent creation of ephemeral channels perpendicular to the water body. Any tree removal must be performed in a manner that does not compromise the intended purpose of the riparian area and is in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J .0201-.0209).

(b) The following waterbodies and land uses are exempt from the riparian area requirement:

(i) Ditches and manmade conveyances, other than modified natural streams, which under normal conditions do not receive drainage waters from any tributary ditches, canals, or streams, unless the ditch or manmade conveyance delivers runoff directly to waters classified in accordance with 15A NCAC 2B .0100;

(ii) Ditches and manmade conveyances other than modified natural streams which are used exclusively for drainage of silvicultural land or naturally forested areas. All forest harvesting operations shall be in compliance with North Carolina's Forest Practices Guidelines Related to Water Quality;

(iii) Areas mapped as perennial streams, intermittent streams, lakes, ponds or estuaries on the most recent versions of United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps where no perennial, intermittent waterbody, or lakes, ponds or estuaries exists on the ground;

(iv) Ponds and lakes created for animal watering, irrigation, or other agricultural uses that are not part of a natural drainage way that is classified in accordance with 15A NCAC 2B .0100;

(v) Water dependent structures as defined in 15A NCAC 2B .0202 provided that they are located, designed, constructed and maintained to provide maximum nutrient removal, to have the least adverse effects on aquatic life habitat and to protect water quality;

(vi) The following uses may be allowed where no practical alternative exists. A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters. Also, these structures shall be located, designed, constructed, and maintained to have minimal disturbance, to provide maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical through the use of best management practices:

(A) Road crossings, railroad crossings, bridges, airport facilities, and utility crossings may be allowed if conditions specified in Sub-Item (8)(b)(vi) of this Rule are met;

(B) Stormwater management facilities and ponds, and utility construction and maintenance corridors for utilities such as water, sewer or gas, may be allowed in Zone 2 of the riparian area as long as the conditions specified in Sub-Item (8)(b)(vi) of this Rule are met and they are located at least 30 feet from the top of bank or mean high water line. Additional requirements for utility construction and maintenance corridors are listed in Sub-Item (8)(b)(vi) of this Rule.

(vii) A corridor for the construction and maintenance of utility lines, such as water, sewer or gas, (including access roads and stockpiling of materials) may run parallel to the stream and may be located within Zone 2 of the riparian area, as long as no practical alternative exists and they are located at least 30 feet from the top of bank or mean high water line and best management practices are installed to minimize runoff and maximize water quality protection to the maximum extent practicable. Permanent, maintained access corridors shall be restricted to the minimum width practicable and shall not exceed 10 feet in width

except at manhole locations. A 10 feet by 10 feet perpendicular vehicle turnaround is allowed provided they are spaced at least 500 feet apart along the riparian area;

(viii) Stream restoration projects, scientific studies, stream gauging, water wells, passive recreation facilities such as boardwalks, trails, pathways, historic preservation and archaeological activities are allowed; provided that they are located in Zone 2 and are at least 30 feet from the top of bank or mean high water line and are designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to maximum extent practical through the use of best management practices. Activities that must cross the stream or be located within Zone 1 are allowed as long as all other requirements of this Item are met;

(ix) Stream crossings associated with timber harvesting are allowed if performed in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J.0201-.0209); and

(x) In addition to exceptions included in Sub-Item (8)(b)(i)-(ix), canals, ditches, and other drainage conveyances are exempt from the riparian area requirement if both water control structures with a water control structure management plan and a nutrient management plan, are implemented on the adjacent agricultural land according to the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission. The water control structures and nutrient management practices must provide equivalent protection and directly affect the land and waterbodies draining into the waterbody exempted from the riparian area requirement. To the maximum extent practical, water control structures shall be managed to maximize nitrogen removal throughout the year. A technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission must provide written approval that the nutrient management and water management plans meet the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission. If the nutrient management plans and water management plans are not implemented, then a riparian area pursuant to this Section is required.

(c) The following are modifications to the riparian area requirements.

(i) On agricultural land where either water control structures with a water control structure management plan, or a nutrient management plan is implemented according to the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission, then a 20-ft forested or a 30-ft vegetated buffer is required. The water control structures or nutrient management practices must provide equivalent protection and directly affect the land and waterbodies draining into the waterbody with a modified buffer requirement. To the maximum extent practical, water control structures shall be managed to maximize nitrogen removal throughout the year. A technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission must provide written approval that the nutrient management plan meets the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission.

(ii) A vegetated riparian area may be substituted for an equivalent width of forested riparian area within 100 feet of tile drainage.

(iii) Where the riparian area requirements would result in an unavoidable loss of tobacco allotments [(7 CFR 723.220(c)] and the BMPs of controlled drainage or nutrient management are not in place, forest cover is required only in the first 20 feet of the riparian area.

(d) Maintenance of Zones 1 and 2 is required in accordance with this Rule.

(i) Sheet flow must be maintained to the maximum extent practical through dispersing concentrated flow and re-establishment of vegetation to maintain the effectiveness of the riparian area.

(ii) Concentrated runoff from new ditches or manmade conveyances must be dispersed into sheetflow before the runoff enters Zone 2 of the riparian area. Existing ditches and manmade conveyances, as specified in Sub-Item (8)(b)(ii) of this Rule, are exempt from this requirement; however, care shall be taken to minimize pollutant loading through these existing ditches and manmade conveyances from fertilizer application or erosion.

(iii) Periodic corrective action to restore sheet flow shall be taken by the landowner if necessary to impede the formation of erosion gullies which allow concentrated flow to bypass treatment in the riparian area.

(e) Periodic maintenance of modified natural streams such as canals is allowed provided that disturbance is minimized and the structure and function of the riparian area is not compromised. A grassed travelway is allowed on one side of the waterbody when alternative forms of maintenance access are not practical. The width and specifications of the travelway shall be only that needed for equipment access and operation. The travelway shall be located to maximize stream shading.

(f) Where the standards and management requirements for riparian areas are in conflict with other laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, development in Coastal Area Management Act Areas of Environmental Concern, or other environmental protection areas, the more protective shall apply.

(g) The Environmental Management Commission acknowledges that best management practices under the standard management practice option of this Rule do not fully address nitrogen loading, including atmospheric emissions and deposition, from animal operations. As information becomes available on nitrogen loadings from animal operations and best management practices to control these loadings, other best management practices from animal operations may be required by the Commission as necessary to achieve equivalent reduction in nitrogen loadings therefrom. These additional best management practices shall be required if deemed necessary to achieve a net total nitrogen loading reduction from the animal operations based on average 1991-1995 conditions.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1);*
Eff. August 1, 1998.

15A NCAC 02B .0239 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT MANAGEMENT

The following is the management strategy for nutrient management in the Neuse River Basin:

(1) The following persons shall obtain a certificate, issued within five years of the effective date of this Rule by the Cooperative Extension Service or the Division of Water Quality, verifying completion of training and continuing education in nutrient management. Within one year from the effective date of this Rule, the Division of Water Quality, in cooperation with the Cooperative Extension Service, shall conduct a sign-up process for persons wishing to take the nutrient management training. If these persons fail to obtain the nutrient management certificate, they are required to develop and properly implement nutrient management plans for the lands where they apply fertilizer within five years of the effective date of this Rule:

(a) Applicators who in a calendar year apply fertilizer to cropland areas, including row and vegetable crops, floriculture areas, ornamental areas and greenhouse production areas, that together comprise at least 50 acres and persons responsible for managing cropland areas, as described in Sub-Item (1)(a) of this Rule, that together comprise at least 50 acres;

(b) Applicators who in a calendar year apply fertilizer to a golf course, recreational land areas, right-of-way, or other turfgrass areas that together comprise at least 50 acres, and persons responsible for managing the turfgrass aspects of lands, as described in Sub-Item (1)(b) of this Rule, that together comprise at least 50 acres; and

(c) Commercial applicators who apply fertilizer to at least 50 total acres per year of lawn and garden areas in residential, commercial, or industrial developments, and persons responsible for managing the lawn and garden aspects of lands, as described in Sub-Item (1)(c) of this Rule, that together comprise at least 50 acres.

(2) If the persons listed in Sub-Items (1)(a)-(c) of this Rule do not attend and complete within five years of the effective date of this Rule a nutrient management training program administered by the Cooperative Extension Service, their nutrient management plans shall meet the following requirements:

(a) Nutrient management plans for cropland shall meet the standards and specifications of the USDA - Natural Resources Conservation Service or the standards and specifications adopted by the NC Soil and Water Conservation Commission. Written approval from a technical specialist designated pursuant to rules adopted by the Soil and Water Conservation Commission must be obtained by the applicator certifying that a nutrient management plan meeting these standards has been developed for the lands where they apply fertilizer.

(b) Nutrient management plans for turfgrass, floriculture, ornamental and greenhouse production application of nutrients shall meet recommended guidelines in the following documents or other recommended guidelines from land-grant universities to minimize nutrient loss to waters in the Neuse River Basin. Nutrient management plans for turfgrass shall follow the North Carolina Cooperative Extension Service (NCCES) guidelines in "Water Quality And Professional Lawn Care"; NCCES publication number WQMM-155 or "Water Quality And Home Lawn Care"; NCCES publication number WQMM-151. Copies may be obtained from the Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina 27626 at no cost. Nutrient management plans for nursery crops and greenhouse production shall follow the Southern Nurserymen=s Association guidelines promulgated in "Best Management Practices Guide For Producing Container-Grown Plants". Copies may be obtained from the Southern Nurserymen=s Association, 1000 Johnson Ferry Road, Suite E-130, Marietta, GA 30068-2100 at a cost of thirty-five dollars ($35.00). There materials related to nutrient management plans for turfgrass, nursery crops and greenhouse production are hereby incorporated by reference including any subsequent amendments and editions and are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina. The Division of Water Quality shall develop model plans in consultation with the Cooperative Extension Service, the Natural Resources Conservation Service, the Division of Soil and Water Conservation, and the North Carolina Department of Agriculture and approved by the Director of the Division of Water Quality within one year of the effective date of this Rule. The model plans shall provide a description of the type of information to be included in the plans for source of nutrients, the amount of nutrient applied, the placement of nutrients, and the timing of nutrient applications. Written approval from a technical specialist designated pursuant to rules adopted by the Environmental Management Commission must be obtained by the applicator certifying that a nutrient management plan meeting these standards has been developed for the lands where they apply fertilizer.

(c) For nutrient management plans developed under Sub-Items (2)(a) and (2)(b) of this Rule using dry poultry litter from animal waste management systems involving 30,000 or more birds, dry poultry litter shall be applied at agronomic rates for nitrogen based on realistic yield expectations derived from waste nutrient content, crop and soil type, or yield records.

(d) Nutrient management plans and supporting documents must be kept on-site or be producible within 24 hours of a request by the Division of Water Quality.

(e) Nutrient management plans may be written by the applicator or a consultant to the applicator.

(3) Applicators and commercial applicators subject to Item (2) of this Rule who do not develop a nutrient management plan or do not apply nutrients in accordance with a nutrient management plan meeting the specifications in Item (2) are in violation of this Rule and are subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(4) Residential landowners and other individuals applying fertilizer to less than 50 acres per year shall to the maximum extent practical apply fertilizer to residential, commercial, industrial, turfgrass, and cropland areas at rates recommended by the Cooperative Extension Service.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1);*
Eff. August 1, 1998.

15A NCAC 02B .0240 NEUSE RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT OFFSET PAYMENTS

(a) Nutrient offset payments made as part of fulfilling requirements of the Neuse River Nutrient Sensitive Waters Management Strategy shall be paid to the North Carolina Wetland Restoration Fund. Monies paid to this fund pursuant to this Rule shall be targeted toward restoration of wetlands and riparian areas within the Neuse River Basin.
(b) A cost effectiveness rate shall be established by the Division that represents the cost to achieve a reduction of one kilogram (1 kg) or one pound (1 lb) of total nitrogen per year through the use of nitrogen reduction measures. The rate shall be periodically updated by the Division based on the availability of new cost or effectiveness data. The rate shall be twenty-three dollars per kilogram per year ($23/kg/year) or eleven dollars per pound per year ($11/lb/year).
(c) The offset payment shall be an amount sufficient to fund 30 years of nitrogen reduction. For loading offset in the wastewater discharge found in 15A NCAC 2B .0234, payment shall be made prior to permit issuance. For loading offset in the stormwater rule found in 15A NCAC 2B .0235, payment shall be made prior to approval of the development plan.
(d) The nitrogen reduction credit associated with restored wetlands and riparian areas funded under this Rule shall be awarded exclusively to the person, municipality, discharger or group of dischargers who paid the offset fee.

History Note: *Authority G.S. 143-214.1;*
Eff. August 1, 1998.

15A NCAC 02B .0241 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: DELEGATION OF AUTHORITY FOR THE PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

(a) PURPOSE. This Rule sets out the requirements for delegation of the responsibility for implementing and enforcing the Neuse Basin existing riparian buffer protection program, as described in Rule 15A NCAC 2B .0233, to local governments.
(b) PROCEDURES FOR GRANTING AND RESCINDING DELEGATION. The Commission shall grant and rescind local government delegation of the Neuse River Basin Riparian Buffer Protection requirements according to the following procedures.

(1) Local governments within the Neuse River Basin may submit a written request to the Commission for authority to implement and enforce the State's riparian buffer protection requirements within their jurisdiction. The written request shall be accompanied by information that shows:
    (A) The local government has land use jurisdiction for the riparian buffer demonstrated by delineating the local land use jurisdictional boundary on USGS 1:24,000 topographical map(s) or other finer scale map(s);
    (B) The local government has the administrative organization, staff, legal authority, financial and other resources necessary to implement and enforce the State's riparian buffer protection requirements based on its size and projected amount of development;
    (C) The local government has adopted ordinances, resolutions, or regulations necessary to establish and maintain the State's riparian buffer protection requirements; and
    (D) The local government has provided a plan to address violations with appropriate remedies and actions including, but not limited to, civil or criminal remedies that shall restore buffer nutrient removal functions on violation sites and provide a deterrent against the occurrence of future violations.
(2) Within 90 days after the Commission has received the request for delegation, the Commission shall notify the local government whether it has been approved, approved with modifications, or denied.
(3) The Commission, upon determination that a delegated local authority is failing to implement or enforce the Neuse Basin riparian buffer protection requirements in keeping with a request approved under Sub-item (b)(2) of this Rule, shall notify the delegated local authority in writing of the local program's inadequacies. If the delegated local authority has not corrected the deficiencies within 90 days of receipt of the written notification, then the Commission shall rescind the delegation of authority to the local government and shall implement and enforce the State's riparian buffer protection requirements.
(4) The Commission may delegate its duties and powers for granting and rescinding local government delegation of the State's riparian buffer protection requirements, in whole or in part, to the Director.

(c) APPOINTMENT OF A RIPARIAN BUFFER PROTECTION ADMINISTRATOR. Upon receiving delegation, local governments shall appoint a Riparian Buffer Protection Administrator who shall coordinate the implementation and enforcement of the program. The Administrator shall attend an initial training session by the Division and subsequent annual training sessions. The Administrator shall ensure that local government staffs working directly with the program receive training to understand, implement and enforce the program.

(d) PROCEDURES FOR USES WITHIN RIPARIAN BUFFERS THAT ARE ALLOWABLE AND ALLOWABLE WITH MITIGATION. Upon receiving delegation, local authorities shall review proposed uses within the riparian buffer and issue approvals if the uses meet the State's riparian buffer protection requirements. Delegated local authorities shall issue an Authorization Certificate for uses if the proposed use meets the State's riparian buffer protection requirements, or provides for appropriate mitigated provisions to the State's riparian buffer protection requirements. The Division may challenge a decision made by a delegated local authority for a period of 30 days after the Authorization Certificate is issued. If the Division does not challenge an Authorization Certificate within 30 days of issuance, then the delegated local authority's decision shall stand.

(e) VARIANCES. After receiving delegation, local governments shall review variance requests, provide approvals for minor variance requests and make recommendations to the Commission for major variance requests pursuant to the State's riparian buffer protection program.

(f) LIMITS OF DELEGATED LOCAL AUTHORITY. The Commission shall have jurisdiction to the exclusion of local governments to implement the State's riparian buffer protection requirements for the following types of activities:

(1) Activities conducted under the authority of the State;
(2) Activities conducted under the authority of the United States;
(3) Activities conducted under the authority of multiple jurisdictions; and
(4) Activities conducted under the authority of local units of government.

(g) RECORD-KEEPING REQUIREMENTS. Delegated local authorities shall maintain on-site records for a minimum of five years. Delegated local authorities must furnish a copy of these records to the Director within 30 days of receipt of a written request for the records. The Division shall inspect local riparian buffer protection programs to ensure that the programs are being implemented and enforced in keeping with a request approved under Sub-item (b)(2) of this Rule. Each delegated local authority's records shall include the following:

(1) A copy of variance requests;
(2) The variance request's finding of fact;
(3) The result of the variance proceedings;
(4) A record of complaints and action taken as a result of the complaint;
(5) Records for stream origin calls and stream ratings; and
(6) Copies of request for authorization, records approving authorization and Authorization Certificates.

History Note: *Authority 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998 c. 221; Eff. August 1, 2000.*

15A NCAC 02B .0242 NEUSE RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following are the requirements for the Riparian Buffer Mitigation Program for the Neuse Basin.

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to the Neuse Basin existing riparian buffer protection program, as described in Rule 15A NCAC 2B .0233.
(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Neuse Basin when one of the following applies:
    (a) A person has received an Authorization Certificate pursuant to 15A NCAC 2B .0233 for a proposed use that is designated as "allowable with mitigation."
    (b) A person has received a variance pursuant to 15A NCAC 2B .0233 and is required to perform mitigation as a condition of a variance approval.
(3) THE AREA OF MITIGATION. The required area of mitigation shall be determined by either the Division or the delegated local authority according to the following:
    (a) The impacts in square feet to each zone of the riparian buffer shall be determined by the Division or the delegated local authority by adding the following:
        (i) The area of the footprint of the use causing the impact to the riparian buffer.
        (ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use.
        (iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.
    (b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Rule to each zone of the riparian buffer:
        (i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 3.

(ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5.

(iii) Impacts to wetlands within Zones 1 and 2 of the riparian buffer that are subject to mitigation under 15A NCAC 2H .0506 shall comply with the mitigation ratios in 15A NCAC 2H .0506.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be the same distance from the Neuse River estuary as the proposed impact, or closer to the estuary than the impact, and as close to the location of the impact as feasible.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or the delegated local authority shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule.

(b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule.

(c) Restoration or enhancement of a non-forested riparian buffer. This shall be accomplished by the applicant after submittal and approval of a restoration plan pursuant to Item (9) of this Rule.

(7) PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND. Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund shall meet the following requirements:

(a) SCHEDULE OF FEES: The amount of payment into the Fund shall be determined by multiplying the acres or square feet of mitigation determination made pursuant to Item (5) of this Rule by ninety-six cents per square foot or forty-one thousand, six hundred and twenty-five dollars per acre.

(b) The required fee shall be submitted to the Division of Water Quality, Wetlands Restoration Program, MAIL SERVICE CENTER 1619, RALEIGH, NC 27699-1619 prior to any activity that results in the removal or degradation of the protected riparian buffer for which a "no practical alternatives" determination has been made.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Item (8) of this Rule.

(d) The Division shall review the fee outlined in Sub-item (7)(a) of this Rule every two years and compare it to the actual cost of restoration activities conducted by the Department, including site identification, planning, implementation, monitoring and maintenance costs. Based upon this biennial review, the Division shall recommend revisions to Sub-item (7)(a) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(8) DONATION OF PROPERTY. Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

(a) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) of this Rule. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to Sub-item (7)(a) of this Rule, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) The property shall be located within an area that is identified as a priority for restoration in the Basinwide Wetlands and Riparian Restoration Plan developed by the Department pursuant to G.S. 143-214.10 or shall be located at a site that is otherwise consistent with the goals outlined in the Basinwide Wetlands and Riparian Restoration Plan.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(iv) The size of the restorable riparian buffer on the property to be donated shall equal or exceed the acreage of riparian buffer required to be mitigated under the mitigation responsibility determined pursuant to Item (3) of this Rule.

(v) The property shall not require excessive measures for successful restoration, such as removal of structures or infrastructure. Restoration of the property shall be capable of fully offsetting the adverse impacts of the requested use;

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(ix) The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended.

(x) The property shall not contain any hazardous substance or solid waste.

(xi) The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations.

(xii) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort.

(xiii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the Division with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule.

(ii) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements.

(iii) A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609.

(iv) A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734.

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule.

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 2B .0233. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Division. The restoration or enhancement plan shall contain the following.

(i) A map of the proposed restoration or enhancement site.

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.

(iv) A fertilization plan.

(v) A schedule for implementation.

(e) Within one year after the Division has approved the restoration or enhancement plan, the applicant shall present proof to the Division that the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of the State's or the delegated local authority's riparian buffer protection program.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

History Note: *Authority 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1998, c. 221;*
Temporary Adoption Eff. June 22, 1999;
Eff. August 1, 2000.

15A NCAC 02B .0243 CATAWBA RIVER BASIN: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following is the management strategy for maintaining and protecting existing riparian buffers along the Catawba River mainstem below Lake James and along mainstem lakes from and including Lake James to the North Carolina and South Carolina border in the Catawba River Basin.

(1) PURPOSE. The purpose of this Rule shall be to protect and preserve existing riparian buffers along the Catawba River mainstem below Lake James and along mainstem lakes from and including Lake James to the North Carolina and South Carolina border in the Catawba River Basin in order to maintain their pollutant removal functions as an aid in protecting the water quality of the lakes and connecting river segments.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water. (current definition in Forest Practice Guidelines Related to Water Quality, 15A NCAC 01I .0102)

(b) "Forest plantation" means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(c) "Full Pond Level" is a term used by Duke Energy Inc. that refers to the project water level, referenced to mean sea level, for each of the seven mainstem lakes along the Catawba River. The landward edge of the lakes at full pond level represents the project boundary for each lake.

(d) "High Value Tree" means a tree whose stump diameter is equal to or exceeding 18-inch.

(e) "Mainstem lakes" means the following impoundments created along the mainstem of the Catawba River: Lake James, Lake Rhodhiss, Lake Hickory, Lookout Shoals Lake, Lake Norman, Mountain Island Lake and Lake Wylie (North Carolina portion).

(f) "Shoreline stabilization" is the in-place stabilization of a severely eroding bank. Stabilization techniques which include "soft" methods or natural materials (such as root wads, or rock vanes) may be considered as part of a restoration design. However, stabilization techniques that consist

primarily of "hard" engineering, such as concrete lined channels, rip rap, or gabions, while providing bank stabilization, will not be considered restoration or enhancement in most cases.

(g) "Stream restoration" is defined as the process of converting an unstable, altered or degraded stream corridor, including adjacent riparian zone and flood-prone areas to its natural or referenced, stable conditions considering recent and future watershed conditions.

(h) "Stump diameter" means stump diameter of a tree, which is measured at six inches above ground surface level.

(i) "Surface water" means all waters of the state as defined in G.S. 143-212 except underground waters.

(j) "Temporary road" means a road constructed temporarily for equipment access to build or replace hydraulic conveyance structures, water dependent structures, and/or to maintain public traffic during construction.

(k) "Tree" means a woody plant with a stump diameter equal to or exceeding six inches.

(3) APPLICABILITY. This Rule shall apply to a 50-foot wide riparian buffer directly adjacent to surface waters along the Catawba River mainstem below Lake James and along mainstem lakes in the Catawba River Basin, excluding wetlands. Wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 02H .0506. The riparian buffers protected by this Rule shall be measured pursuant to Item (4) of this Rule. Riparian buffers adjacent to surface waters of the Catawba River mainstem below Lake James and mainstem lakes shall be subject to this Rule unless one of the following applies.

(a) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(i) A use shall be considered existing if it was present within the riparian buffer as of June 30, 2001. Existing uses shall include, but not be limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule. Change of ownership through legal purchase or inheritance is not considered a change of use. Activities necessary to maintain uses are allowed provided that the site remains similarly vegetated, no impervious surface is added within 50 feet of the surface water where it did not previously exist as of the effective date of the Rule, and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(ii) A use shall be considered as existing if projects or proposed development at a minimum have been determined by the Division or the appropriate local government with approved riparian buffer ordinance to meet at least one of the following criteria:

(A) Project requires a 401 Certification/404 Permit and these were issued prior to June 30, 2001;

(B) Projects that require a state permit, such as landfills, NPDES wastewater discharges, land application of residuals and road construction activities, have begun construction or are under contract to begin construction and have received all required state permits prior to June 30, 2001;

(C) Projects that have been determined to have a Vested Right by the NC Attorney General's Office; or,

(D) Projects that have established a Vested Right under North Carolina zoning law as of June 30, 2001.

(b) LOCAL GOVERNMENTS THAT HAVE APPROVED RIPARIAN BUFFER ORDINANCES. All local governments that have land use authority along the Catawba River mainstem below Lake James and along mainstem lakes in the Catawba River Basin may adopt local riparian buffer ordinances to protect water quality. The Division shall approve the local riparian buffer ordinance within 30 days after receiving the request from local governments, if the Division determines that the local riparian buffer ordinance provides equal to or greater water quality protection than this Rule. This Rule shall not apply in any area where a local government has obtained the Division's approval of the local riparian buffer ordinance, provided that the local government is implementing and enforcing the approved local riparian buffer ordinance. The Division, upon determination that the

local government is failing to implement or enforce the approved local buffer ordinance, shall notify the local government in writing of the local program inadequacies. If the local government has not corrected the deficiencies within 90 days of receipt of written notification, then the Division shall implement and enforce the provisions of this Rule.

(4) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a forested area that is undisturbed except for uses provided for in Item (6) of this Rule. The location of Zone 1 shall be as follows:

(i) For the Catawba River mainstem below Lake James, Zone 1 shall begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to a vertical line marking the edge of the surface water.

(ii) For the mainstem lakes located on the Catawba River mainstem, Zone 1 shall begin at the most landward limit of the full pond level and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to a vertical line marking the edge of the full pond level.

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for activities and uses provided for in Item (6) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to a vertical line marking the edge of Zone 1. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water along the Catawba River mainstem below Lake James and along mainstem lakes in the Catawba River Basin.

(5) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(6) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, allowable, or allowable with mitigation. Any uses, which are not listed in the table, shall be considered as prohibited. The requirements for each category are given in Item (7) of this Rule.

	Exempt	Allowable	Allowable with Mitigation
Access trails or roads for accessing activities allowed in this Rule, such as water dependent activities:			
• Access trails to the surface water provided that installation and use does not result in removal of trees as defined in this Rule	X		
• Pedestrian access trails to the surface water that are restricted to the minimum width practicable but do not exceed 7 feet in width of buffer disturbance, and provided that no impervious surface is added to the riparian buffer		X	
• Vehicular access roads to the surface water but not crossing the surface water that are restricted to the minimum width practicable not to exceed 15 feet in width		X	
• Vehicular access roads to the surface water but not crossing the surface water that are restricted to the minimum width practicable and exceed 15 feet in width			X

Airport facilities: • Airport or airstrip facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport or airstrip facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	X
Archaeological activities	X		
Bridges		X	
Canoe Access provided that installation and use does not result in removal of trees as defined in this Rule and no impervious surface is added to the buffer	X		
Dam maintenance activities	X		
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control pollutants and attenuate flow before the conveyance discharges through the riparian buffer	X	X	
Driveway crossings of surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturbs equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturbs greater than 150 linear feet or one-third of an acre of riparian buffer	X	X X	X
Fences provided that disturbance is minimized and installation does not result in removal of trees as defined in this Rule	X		
Forest harvesting - see Item (11) of this Rule			
Grading and revegetation in Zone 2 only provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are stabilized	X		
Greenway / hiking trails		X	
Historic preservation	X		
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (4) and (5) of this Rule are established adjacent to the relocated channels • Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements of Items (4) and (5) of this Rule are not established adjacent to the relocated channels		X	X
Non-electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only [3]		X	

• Impacts other than perpendicular crossings in Zone 1 [3]			X
Non-electric utility line perpendicular crossings of surface waters subject to this Rule [3]: • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer	X	X X	X X
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only [3] • Impacts other than perpendicular crossings in Zone 1 [1,2,3]	X X		
Overhead electric utility line perpendicular crossings of surface waters subject to this Rule [3]: • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [1] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [1, 2]	X	X	

[1] Provided that, in Zone 1, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternative evaluation by the Division.

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Rip rap shall not be used unless it is necessary to stabilize a tower.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

[2] Provided that poles or towers shall not be installed within 10 feet of a water body unless the Division completes a no practical alternative evaluation.

[3] Perpendicular crossings are those that intersect the surface water at an angle between 75° and 105°. New water intakes and new outfall lines which may be required to extend to or cross part of waterbodies will be implemented and enforced under this category.

	Exempt	Allowable	Allowable with Mitigation
Playground equipment: • Playground equipment provided that installation and use does not result in removal of vegetation • Playground equipment provided that installed and use requires removal of vegetation	X	X	

Properties that have been subdivided by an approved preliminary subdivision plat [4] within 2 years prior to June 30,2001 for conventional subdivisions and within 5 years prior to June 30, 2001 for phased subdivisions: • Uses in Zone 2 provided that the ground is stabilized and diffuse flow is maintained • Uses in Zone 1 provided that the ground is stabilized and diffuse flow is maintained. On-site waste systems, septic tanks and drainfields are not allowed in Zone 1	X	X	
Properties that are included on a recorded subdivision plan prior to June 30, 2001: • Uses in Zone 2 provided that the ground is stabilized and diffuse flow is maintained • Uses in Zone 1 provided that the ground is stabilized and diffuse flow is maintained. On-site waste systems, septic tanks and drainfields are not allowed in Zone 1	X	X	
Protection of existing structures, facilities and shoreline when this requires additional disturbance of the riparian buffer or the channel		X	
Pumps for agricultural irrigation in Zone 1 provided that installation and use does not result in removal of trees as defined in this Rule		X	

[4] The submitted preliminary subdivision plat shall include but not limited to all the following information:

- Total acreage of land proposed for platting.
- The boundaries of the tract or portion thereof to be subdivided, with all bearings and distances accurately shown, including dimensions of all lot lines.
- Location and use of all existing and proposed easements. This includes easements for drainage and utilities.
- Location, width of rights-of-way and all proposed streets.
- Location of all utilities installations.
- Distance to nearest public water supply and sanitary sewerage systems.
- Significant natural features including existing riparian buffer areas, existing wetlands, lakes or rivers, or other natural features affecting the site.
- Existing physical features including buildings, streets, railroads, power lines, drainage ways, sewer and water or spring heads, and town limit lines both to or adjacent to the land to be subdivided.

	Exempt	Allowable	Allowable with Mitigation
Railroad impacts other than crossings of surface waters subject to this Rule			X
Recreational and accessory structures such as decks, gazebos, and sheds with a footprint of less than 150 square feet provided that the structures are elevated above pervious ground, that installation does not result in removal of trees as defined in this Rule, and that they are not otherwise prohibited under the local water supply watershed ordinance	X		
Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored	X		
Road impacts other than crossings of surface waters subject to this Rule			X
Road crossings of surface waters subject to this Rule:			

• Road crossings that impact equal to or less than 40 linear feet of riparian buffer	X		
• Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer		X	
• Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer			X
Scientific studies and gauging station	X		
Stormwater management ponds excluding dry ponds:			
• New stormwater management ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond		X	
• New stormwater management ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond			X
Stream restoration with approved 401 Certification / 404 Permit	X		
Shoreline stabilization		X	
Temporary roads:			
• Temporary roads that disturb less than or equal to 2,500 square feet provided that vegetation is restored within six months of initial disturbance	X		
• Temporary roads that disturb greater than 2,500 square feet provided that vegetation is restored within six months of initial disturbance		X	
• Temporary roads used for culvert installation, bridge construction or replacement provided that restoration activities, such as soil stabilization and revegetation, are conducted immediately after construction		X	
Temporary sediment and erosion control devices:			
• In Zone 2 only provided that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule	X		
• In Zones 1 and 2 to control impacts associated with uses approved by the Division or that have received a variance provided that sediment and erosion control for upland areas is addressed to the maximum extent practical outside the buffer		X	
• In-stream temporary erosion and sediment control measures for work within a stream channel	X		
Underground electric utility lines:			
• Impacts other than perpendicular crossings in Zone 2 only [3]	X		
• Impacts other than perpendicular crossings in Zone 1 [3,5]	X		
Underground electric utility line perpendicular crossings of surface waters subject to this Rule: [3]			
• Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer [5]	X		
• Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer [5]		X	
View corridors - thinning of underbrush, shrubs, and low-hanging limbs to enhance a lake view provided soils are undisturbed.	X		

[5] Provided that, in Zone 1, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the Division.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

	Exempt	Allowable	Allowable with Mitigation
Vegetation management:			
• Emergency fire control measures provided that topography is restored	X		
• Periodic mowing and harvesting of plant products in Zone 2 only	X		
• Planting vegetation to improve water quality protection function of the riparian buffer	X		
• Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised	X		
• Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life	X		
• Removal of individual trees which are dead, diseased or damaged	X		
• Removal of poison ivy	X		
• Removal of understory nuisance vegetation as defined in: Smith, Cherri L. 1998. Exotic Plant Guidelines. Department of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	X		
Water dependent structures as defined in 15A NCAC 02B .0202	X		
Water wells	X		
Wetland restoration	X		

(7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, allowable with mitigation in Item (6) of this Rule and prohibited in this Rule shall have the following requirements:

(a) EXEMPT. Uses designated as exempt are allowed within the riparian buffer. Exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable. In addition, exempt uses shall meet requirements listed in Item (6) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule. These uses require written authorization from the Division or the local government with approved riparian buffer ordinance.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Rule. These uses require written authorization from the Division or the local government with approved riparian buffer ordinance.

(d) PROHIBITED. All uses not designated as exempt, allowable or allowable with mitigation are considered prohibited and may not proceed within the riparian buffer unless a variance is granted pursuant to Item (9) of this Rule. Mitigation may be required as one condition of a variance approval.

(8) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the Division or to the local government with approved riparian buffer ordinance. The applicant shall certify that the criteria identified in Sub-Item (8)(a) of this Rule are met. The Division or the local government with approved riparian buffer ordinance shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the Division or the local government with approved riparian buffer ordinance shall review the entire project and make a finding of fact as to whether the following requirements have been met in support of a "no practical alternatives" determination:

(i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (8)(a) of this Rule by either the Division or the local government with approved riparian buffer ordinance. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." The Division or the local government with approved riparian buffer ordinance may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program. Complete submissions shall include the following:

(i) The name, address and phone number of the applicant;

(ii) The nature of the activity to be conducted by the applicant;

(iii) The location of the activity, including the jurisdiction;

(iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;

(v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and

(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) Any disputes over determinations regarding Authorization Certificates shall be referred to the Director for a decision. The Director's decision is subject to review as provided in G.S. 150B Articles 3 and 4.

(9) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The Division or the appropriate local government with approved riparian buffer ordinance shall make all of the following findings of fact and may grant variances. The variance request procedure shall be as follows:

(a) For any variance request, the Division or the local government with approved riparian buffer ordinance shall make all of the finding of fact to insure that the following requirements have been met:

(i) There are practical difficulties or unnecessary hardships that prevent compliance with the strict letter of the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with the following:

(A) If the applicant complies with the provisions of this Rule, he/she can secure no reasonable return from, nor make reasonable use of, his/her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the Division or the local government with approved riparian buffer ordinance shall consider whether

the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.

(B) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.

(C) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.

(D) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.

(E) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.

(ii) The variance is in harmony with the general purpose and intent of the Catawba River Basin's riparian buffer protection requirements and preserves its spirit; and

(iii) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(b) Variance requests shall be reviewed and approved based on the criteria in Sub-Item (9)(a) of this Rule by either the Division or the local government with approved riparian buffer ordinance pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The Division or the local government with approved riparian buffer ordinance may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals made by the local government with approved riparian buffer ordinance shall be made to the appropriate Board of Adjustment under G.S. 160A-388 or G.S. 153A-345 for determinations made by the local government with approved riparian buffer ordinance.

(10) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (8) of this Rule.

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 02B .0244.

(11) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices.

(a) The following measures shall apply in Zone 1 of the riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Timber felling shall be directed away from the water body.

(iii) Skidding shall be directed away from the water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts in accordance with 15A NCAC 01I .0203 as enforced by the Division of Forestry Resources.

(iv) Individual trees may be treated to maintain or improve their health, form or vigor.

(v) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site. The Division of Forest Resources must notify the Division of all approvals.

(vi) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(vii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(viii) High intensity prescribed burns shall not be allowed.

(ix) Application of fertilizer shall not be allowed except as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stand shall be conducted so that the chemicals are not applied directly to or allowed to drift into the riparian buffer.

(b) In Zone 1, forest vegetation shall be protected and maintained. Selective harvest as provided for below is allowed on forest lands that have a deferment for use value under forestry in accordance

with G.S. 105-277.2 through G.S. 277.6 or on forest lands that have a forest management plan prepared or approved by a registered professional forester. Copies of either the approval of the deferment for use value under forestry or the forest management plan shall be produced upon request. For such forest lands, selective harvest is allowed in accordance with the following:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 01I .0203 as enforced by the Division of Forestry Resources.

(ii) Soil disturbing site preparation activities are not allowed.

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(iv) The following provisions for selective harvesting shall be met:

(A) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined.

(B) In the outer 20 feet of Zone 1, trees greater than 12-inch diameter stump may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations where the reentry time shall be no more frequent than every five years. In either case, the trees remaining after harvest shall be as evenly spaced as possible.

(C) In Zone 2, harvesting and regeneration of the forest stand shall be allowed in accordance with 15A NCAC 01I .0100 – .0200 as enforced by the Division of Forestry Resources.

(12) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1999, c. 329, s. 7.1; Temporary Adoption Eff. June 30, 2001.*

15A NCAC 02B .0244 CATAWBA RIVER BASIN: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS IN THE CATAWBA RIVER BASIN

The following are the requirements for the Riparian Buffer Mitigation Program for the Catawba River Basin.

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to maintain and protect existing riparian buffers on the Catawba River mainstem below Lake James and mainstem lakes from and including Lake James to the North Carolina/South Carolina border in the Catawba River Basin, as described in Rule 15A NCAC 02B .0243.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Catawba Basin when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 02B .0243 for a proposed use that is designated as "allowable with mitigation."

(b) A person has received a variance pursuant to 15A NCAC 02B .0243 and is required to perform mitigation as a condition of a variance approval.

(3) THE AREA OF MITIGATION. The required area of mitigation shall be determined by either the Division or a local government with an approved riparian buffer ordinance according to the following:

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by the Division or a local government with an approved riparian buffer ordinance by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer.

(ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use.

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Rule to each zone of the riparian buffer:

(i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 2.

(ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be the same distance from the Catawba River as the proposed impact and as close to the location of the impact as feasible.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or a local government with an approved buffer program shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule.

(b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule.

(c) Restoration or enhancement of a non-forested riparian buffer. This shall be accomplished by the applicant after submittal and approval of a restoration plan pursuant to Item (9) of this Rule.

(7) PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND. Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund shall meet the following requirements:

(a) SCHEDULE OF FEES: The amount of payment into the Fund shall be determined by square feet of mitigation determination made pursuant to Item (5) of this Rule by ninety-six cents per square foot.

(b) The required fee shall be submitted to the Division of Water Quality, Wetlands Restoration Program, Mail Service Center 1619, Raleigh, NC 27699-1619 prior to any activity that results in the removal or degradation of the protected riparian buffer for which a "no practical alternatives" determination has been made.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Item (8) of this Rule.

(d) The Division shall review the fee outlined in Sub-item (7)(a) of this Rule every two years and compare it to the actual cost of restoration activities conducted by the Department, including site identification, planning, implementation, monitoring and maintenance costs. Based upon this biennial review, the Division shall recommend revisions to Sub-item (7)(a) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(8) DONATION OF PROPERTY. Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

(a) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) of this Rule. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to Sub-item (7)(a) of this Rule, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) The property shall be located within an area that is identified as a priority for restoration in the Basinwide Wetlands and Riparian Restoration Plan for the Catawba River Basin developed by the Department pursuant to G.S. 143-214.10 or shall be located at a site that is otherwise consistent with the goals outlined in Basinwide Wetlands and Riparian Restoration Plan for the Catawba River Basin.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(iv) The size of the restorable riparian buffer on the property to be donated shall equal or exceed the acreage of riparian buffer required to be mitigated under the mitigation responsibility determined pursuant to Item (3) of this Rule.

(v) The property shall not require excessive measures for successful restoration, such as removal of structures or infrastructure. Restoration of the property shall be capable of fully offsetting the adverse impacts of the requested use.

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation.

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(ix) The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended.

(x) The property shall not contain any hazardous substance or solid waste.

(xi) The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations.

(xii) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort.

(xiii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the Division with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule.

(ii) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements.

(iii) A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609.

(iv) A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734.

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule.

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 02B .0243. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Division. The restoration or enhancement plan shall contain the following.

(i) A map of the proposed restoration or enhancement site.

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.
(iv) A fertilization plan.
(v) A schedule for implementation.

(e) Within one year after the Division has approved the restoration or enhancement plan, the applicant shall present proof to the Division that the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of the State or a local riparian buffer ordinance.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); S.L. 1999, c. 329, s. 7.1; Temporary Adoption Eff. June 30, 2001.*

15A NCAC 02B .0245 RESERVED FOR FUTURE CODIFICATION

15A NCAC 02B .0246 RESERVED FOR FUTURE CODIFICATION

15A NCAC 02B .0247 RESERVED FOR FUTURE CODIFICATION

15A NCAC 02B .0248 RANDLEMAN LAKE WATER SUPPLY WATERSHED: NUTRIENT MANAGEMENT STRATEGY

(a) All waters of the Randleman Lake (Deep River) water supply watershed are classified for water supply uses and designated by the Environmental Management Commission as a Critical Water Supply Watershed pursuant to G.S. 143-214.5(b). The following rules shall be implemented for the entire drainage area upstream of the Randleman Lake Dam:

(1) Rule .0249 of this Section for Wastewater Discharges,
(2) Rule .0250 of this Section for Protection and Maintenance of Riparian Areas, and
(3) Rule .0251 of this Section for Urban Stormwater Management.

(b) Failure to meet the requirements of the Rules in this Section may result in the imposition of enforcement measures as authorized by G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(c) Development activities may be granted minor and major variances from the requirements of Rules .0250 and .0251 of this Section based on the process stated in 15A NCAC 2B .0104(r). However, for the purposes of Rules .0250 and .0251 of this Section, minor and major variances shall be defined as a variance from the more stringent Randleman Lake stormwater management requirements for the lower watershed and the more stringent riparian area requirements for the upper and lower watersheds.

History Note: *Authority G. S. 143-214.1; 143-214.5; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; Eff. April 1, 1999.*

15A NCAC 02B .0249 RANDLEMAN LAKE WATER SUPPLY WATERSHED: WASTEWATER DISCHARGE REQUIREMENTS

The following is the National Pollutant Discharge Elimination System (NPDES) wastewater discharge management strategy for the Randleman Lake watershed. For purposes of this Rule, permitted wastewater discharges means those facilities permitted to discharge domestic wastewater or wastewaters containing phosphorus:

(1) The City of High Point=s Eastside facility shall meet a total phosphorus concentration predicted to provide a level of water quality in the Randleman Lake which meets all designated uses of those waters.
(2) There shall be no new or expanding permitted wastewater discharges in the watershed with the exception that the City of High Point Eastside wastewater treatment plant may be allowed to expand provided that any new permit contains concentration and mass limits predicted to provide a level of water quality in the Randleman Lake which meets all designated uses of those waters.

History Note: *Authority G. S. 143-214.1; 143-214.5; 143-215.3(a)(1);*

Eff. April 1, 1999.

15A NCAC 02B .0250 RANDLEMAN LAKE WATER SUPPLY WATERSHED: PROTECTION AND MAINTENANCE OF RIPARIAN AREAS

The following is the management strategy for maintaining and protecting riparian areas in the Randleman Lake watershed:

(1) Within 270 days of the effective date of this Rule, all local governments with jurisdictions in the Randleman Lake watershed shall submit to the EMC for approval, local water supply ordinances, or modifications to existing ordinances, which include protection of riparian areas as provided in this Rule. Local governments shall use the following provisions in applying this Rule:

(a) Riparian areas shall be protected and maintained in accordance with this Rule on all sides of surface waters in the Randleman Lake watershed such as intermittent streams, perennial streams, lakes, and ponds, as indicated on the most recent version of either the United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps or the Soil Survey maps developed by USDA-Natural Resource Conservation Service, or other site-specific evidence that indicates to the Division of Water Quality (DWQ) the presence of waters not shown on either of these two maps or, as provided in Sub-Item (2)(b) of this Rule, evidence that no actual stream or waterbody exists;

(b) Local governments may, if they choose to do so, develop detailed stream network maps for the watershed based on these USGS and USDA-NRCS maps or criteria, approved by the Division of Water Quality, showing the presence or absence of a stream. These maps shall be submitted to the Division for approval by any local government wishing to use this method of implementation of riparian area protection. After these detailed stream network maps are approved by the Division, riparian areas shall be protected and maintained in accordance with this Rule on all sides of surface waters in the Randleman Lake watershed as delineated on these approved stream network maps; and

(c) Exceptions to the requirements of this Rule for riparian areas are described in Sub-Items (2)(a)-(h) of this Rule. Maintenance of the riparian areas shall be such that, to the maximum extent possible, sheet flow of surface water is achieved. This Rule specifies requirements that shall be implemented in riparian areas to ensure that the pollutant removal functions of the riparian area are protected and maintained. All local governments that have land use authority within the proposed Randleman Lake water supply watershed shall adopt and enforce this Rule through local water supply and other local ordinances. Ordinances shall require that all riparian protection areas are recorded on new or modified plats. No building permits shall be issued and no new development shall take place in violation of this Rule.

(2) The following waterbodies and land uses are exempt from the riparian area protection requirements:

(a) Ditches and manmade conveyances, other than modified natural streams, which under normal conditions do not receive drainage from any tributary ditches, canals, or streams, unless the ditch or manmade conveyance delivers runoff directly to waters classified in accordance with 15A NCAC 2B .0100;

(b) Areas mapped as intermittent streams, perennial streams, lakes, ponds, or estuaries on the most recent versions of United States Geological Survey 1:24,000 scale (7.5 minute quadrangle) topographic maps or soil survey maps where no perennial waterbody, intermittent waterbody, lake, pond or estuary actually exists on the ground;

(c) Ponds and lakes created for animal watering, irrigation, or other agricultural uses that are not part of a natural drainage way that is classified in accordance with 15A NCAC 2B .0100;

(d) Water dependent structures as defined in 15A NCAC 2B .0202, provided that they are located, designed, constructed and maintained to provide maximum nutrient removal, to have the least adverse effects on aquatic life and habitat and to protect water quality;

(e) The following uses where no practical alternative exists. A lack of practical alternatives may be shown by demonstrating that, considering the potential for a reduction in size, configuration or density of the proposed activity and all alternative designs, the basic project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impact to surface waters. Also, these structures shall be located, designed, constructed, and maintained to have minimal disturbance, to provide maximum nutrient removal and erosion protection, to have the least

adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical through the use of best management practices:

(i) Road crossings, railroad crossings, bridges, airport facilities, and utility crossings if conditions specified in Sub-Item(2)(e) of this Rule are met.

(ii) Stormwater management facilities and ponds, and utility construction and maintenance corridors for utilities such as water, sewer or gas, in Zone 2 of the riparian area as long as the conditions specified in Sub-Item (2)(e) of this Rule are met and they are located at least 30 feet from the top of bank or mean high water line. Additional requirements for utility construction and maintenance corridors are listed in Sub-Item (2)(f) of this Rule;

(f) A corridor for the construction and maintenance of utility lines, such as water, sewer or gas, (including access roads and stockpiling of materials) running parallel to the stream and located within Zone 2 of the riparian area, as long as no practical alternative exists, as defined in Sub-Item (2) (e) of this Rule, and best management practices are installed to minimize runoff and maximize water quality protection to the maximum extent practicable. Permanent, maintained access corridors shall be restricted to the minimum width practicable and shall not exceed 10 feet in width except at manhole locations. A 10 feet by 10 feet perpendicular vehicle turnaround shall be allowed provided they are spaced at least 500 feet apart along the riparian area;

(g) Stream restoration projects, scientific studies, stream gauging, water wells, passive recreation facilities such as boardwalks, trails, pathways, historic preservation and archaeological activities, provided that they are located in Zone 2 and are at least 30 feet from the top of bank or mean high water line and are designed, constructed and maintained to provide the maximum nutrient removal and erosion protection, to have the least adverse effects on aquatic life and habitat, and to protect water quality to the maximum extent practical through the use of best management practices. Activities that must cross the stream or be located within Zone 1, are allowed as long as all other requirements of this Item are met; and

(h) Stream crossings associated with timber harvesting, if performed in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J .0201-.0209).

(3) The protected riparian area shall have two zones as follows:

(a) Zone 1 is intended to be an undisturbed area of vegetation.

(i) Location of Zone 1: Zone 1 begins at the top of bank for intermittent streams and perennial streams and extends landward a distance of 30 feet on all sides of the waterbody, measured horizontally on a line perpendicular to the waterbody. For all other waterbodies, Zone 1 begins at the top of bank or mean high water line and extends landward a distance of 30 feet, measured horizontally on a line perpendicular to the waterbody.

(ii) The following practices and activities are allowed in Zone 1:

(A) Natural regeneration of forest vegetation and planting vegetation to enhance the riparian area if disturbance is minimized, provided that any plantings shall primarily consist of locally native trees and shrubs;

(B) Selective cutting of individual trees in Zone 1, where forest vegetation as defined in Rule .0202 of this Section exists, as long as the following conditions are met every 100 feet on each side of the stream;

(I) Of existing trees 12-inches and greater diameter breast height (dbh), a minimum of five trees must remain uncut;

(II) Trees 12-inches and greater dbh may be harvested based on the following equation: Number of Trees harvested = (Total number of trees greater than 12-inches dbh - 5) / 2;

(III) No trees less than 12-inches dbh may be harvested unless exceptions provided in this Rule are met;

(IV) Trees may not be harvested more frequently than every 10 years; and

(V) No tracked or wheeled equipment are allowed;

(C) Horticulture or silvicultural practices to maintain the health of individual trees;

(D) Removal of individual trees which are in danger of causing damage to dwellings, other structures or the stream channel;

(E) Removal of dead trees and other timber cutting techniques necessary to prevent extensive pest or disease infestation if recommended by the Director, Division of Forest Resources and approved by the Director, Division of Water Quality; and

(F) Ongoing agricultural operations provided that existing forest vegetation is protected.

(iii) The following practices are not allowed in Zone 1:

(A) Land-disturbing activities and placement of fill and other materials, other than those allowed in Items (2) and (3)(a)(ii) of this Rule;

(B) New development, except as provided in Sub-Items (2)(d), (2)(e) and (2)(f) of this Rule;

(C) New on-site sanitary sewage systems which use ground adsorption;

(D) The application of fertilizer; and

(E) Any activity that threatens the health and function of the vegetation including, but not limited to, application of chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.

(b) Zone 2 is intended to provide protection through a vegetated riparian zone which provides for diffusion and infiltration of runoff and filtering of pollutants.

(i) Location of Zone 2: Zone 2 begins at the outer edge of Zone 1 and extends landward a minimum of 20 feet as measured horizontally on a line perpendicular to the waterbody. The combined minimum width of Zones 1 and 2 shall be 50 feet on all sides of the waterbody.

(ii) The following practices and activities are allowed in Zone 2 in addition to those allowed in Zone 1:

(A) Periodic mowing and removal of plant products such as timber, nuts, and fruit is allowed provided the intended purpose of the riparian area is not compromised by harvesting, disturbance, or loss of forest or herbaceous ground cover; and

(B) Grading and timber harvesting provided that vegetated ground cover be established immediately following completion of the land-disturbing activity.

(iii) The following practices and activities are not allowed in Zone 2:

(A) New development, except as provided in Sub-Items (2)(e) and (2)(f) of this Rule;

(B) New on-site sanitary sewage systems which use ground adsorption;

(C) Any activity that threatens the health and function of the vegetation including, but not limited to, application of chemicals in amounts exceeding the manufacturer's recommended rate, uncontrolled sediment sources on adjacent lands, and the creation of any areas with bare soil.

(4) Timber removal and skidding of trees shall be directed away from the water course or water body. Skidding shall be done in a manner to prevent the creation of ephemeral channels perpendicular to the water body. Any tree removal must be performed in a manner that does not compromise the intended purpose of the riparian area and is in accordance with the Forest Practices Guidelines Related to Water Quality (15A NCAC 1J .0201-.0209).

(5) Maintenance of sheet flow in Zones 1 and 2 is required in accordance with this Item.

(a) Sheet flow must be maintained to the maximum extent practical through dispersing concentrated flow and re-establishment of vegetation to maintain the effectiveness of the riparian area.

(b) Concentrated runoff from new ditches or manmade conveyances must be dispersed into sheet flow before the runoff enters Zone 2 of the riparian area. Existing ditches and manmade conveyances, as specified in Sub-Item (2)(a) of this Rule, are exempt from this requirement; however, care shall be taken to minimize pollutant loading through these existing ditches and manmade conveyances from fertilizer application or erosion.

(c) Periodic corrective action to restore sheet flow shall be taken by the landowner if necessary to impede the formation of erosion gullies which allow concentrated flow to bypass treatment in the riparian area.

(6) Periodic maintenance of modified natural streams such as canals is allowed provided that disturbance is minimized and the structure and function of the riparian area is not compromised. A grassed travelway is allowed on one side of the waterbody when alternative forms of maintenance access are not practical. The

width and specifications of the travelway shall be only that needed for equipment access and operation. The travelway shall be located to maximize stream shading.

(7) Where the standards and management requirements for riparian areas are in conflict with other laws, regulations, and permits regarding streams, steep slopes, erodible soils, wetlands, floodplains, forest harvesting, surface mining, land disturbance activities, or other environmental protection areas, the more protective shall apply.

(8) The existing water supply requirement in Rule 2B .0216(3)(b) of this Section that stipulates a 100 foot vegetated buffer, adjacent to perennial streams, for all new development activities which utilize the high density option, applies to the entire Randleman Lake watershed. The first 50 feet of these riparian areas on either side of these waters must also be protected in accordance with all the requirements of this Rule.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-215.3(a)(1);*
Eff. April 1, 1999.

15A NCAC 02B .0251 RANDLEMAN LAKE WATER SUPPLY WATERSHED: STORMWATER REQUIREMENTS

The following is the urban stormwater management strategy for the Randleman Lake watershed:

(1) All local governments that have land use authority within the Randleman Lake watershed shall comply with stormwater management requirements as outlined in this Rule. Although the management requirements for the upper and the lower portions of the watershed are similar, additional density-related stormwater requirements apply to the lower portion of this watershed that do not apply to the upper portion of the watershed. The upper portion of the watershed is defined as those waters and lands of the Deep River watershed which drain to the Oakdale-Cotton Mill Dam. The lower portion of the watershed are those waters and lands of the Deep River upstream and draining to the Randleman Lake Dam, from the Oakdale-Cotton Mill Dam to the Randleman Dam.

(2) To meet the requirements of this Rule, the local governments with jurisdictions in the upper portion of the Randleman Reservoir watershed shall meet the state's rules for a WS-IV classification as specified in 15A NCAC 2B .0104, .0202 and .0216, the conditions specified in their existing ordinances, the riparian area protection requirements of Rule .0250 of this Section, along with the stormwater planning requirements set forth in Sub-Items (4), (5), and (6) of this Rule.

(3) To meet the requirements of this Rule, local governments with jurisdictions in the lower portion of the Randleman Lake watershed shall meet the provisions of Sub-Items (4), (5) and (6) of this Rule along with the following:

(a) Within 270 days of the effective date of this Rule, the affected jurisdictions, in coordination with the Piedmont Triad Regional Water Authority, shall submit local water supply ordinances to the Environmental Management Commission for approval. The ordinances shall at least meet the state's minimum rules for a WS-IV classification as specified in 15A NCAC 2B .0104, .0202 and .0216, except that the requirements of this Sub-Item shall replace the nonpoint source requirements in 15A NCAC 2B .0216(3)(b) for the lower portion of the Randleman Lake watershed.

(b) The local ordinances shall provide for review and approval of stormwater management plans for new developments to ensure that the following conditions can be met:

(i) Stormwater pollution control criteria for the Randleman Lake watershed outside of critical area:

(A) Low Density Option: For each development project, development density must be limited to either no more than one dwelling unit per acre of single family detached residential development (or 40,000 square foot lot excluding roadway right-of-way) or 12 percent built-upon area for all other residential and non-residential development. Stormwater runoff shall be transported primarily by vegetated conveyances. Conveyance system shall not include a discrete stormwater collection system as defined in 15A NCAC 2B .0202;

(B) High Density Option: If new development exceeds the low density option requirements as stated in Sub-Item (2)(b)(i) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall. Engineering controls may consist of wet detention ponds designed in accordance with 15A NCAC 2H .1000 or alternative stormwater management systems

consisting of other treatment options, or a combination of options, that are approved by the Director of the Division of Water Quality in accordance with 15A NCAC 2B .0104(g). New residential and non residential development shall not exceed 50 percent built-upon area, unless an alternative high density option is submitted to the Commission as part of the submittal of the local water supply watershed protection ordinance and determined by the Commission to provide equal or greater water quality protection in Randleman Reservoir and its tributaries;

(C) Cluster development shall be allowed on a project-by-project basis as follows:

(I) overall density of the project meets associated density or stormwater control requirements of this Section;

(II) buffers meet the minimum statewide water supply watershed protection requirements and those specified for the Randleman Lake watershed riparian areas in Rule .0250 of this Section;

(III) built-upon areas are designed and located to minimize stormwater runoff impact to the receiving waters, minimize concentrated stormwater flow, maximize the use of sheet flow through vegetated areas, and maximize the flow length through vegetated areas;

(IV) areas of concentrated development are located in upland areas and away, to the maximum extent practicable, from surface waters and drainageways;

(V) remainder of tract to remain in vegetated or natural state by utilization of one of the methods provided in Sub-Item 3(b)(i)(C)(VI) of this Rule;

(VI) area in the vegetated or natural state may be conveyed to a property owners association; a local government for preservation as a park or greenway; a conservation organization; or placed in a permanent conservation or farmland preservation easement;

(VII) a maintenance agreement for the vegetated or natural area shall be filed with the Register of Deeds; and

(VIII) cluster development that meets the applicable low density option requirements shall transport stormwater runoff from the development by vegetated conveyances to the maximum extent practicable;

(D) If local governments choose the high density development option which requires engineered stormwater controls, then they shall assume ultimate responsibility for operation and maintenance of the required controls as outlined in Rule .0104 of this Subchapter;

(E) Impervious cover shall be minimized to the maximum extent practical through clustering, narrower and shorter paved areas (streets, driveways, sidewalks, cul-de-sacs, and parking lots), and spreading rooftop and other impervious area runoff over pervious areas. Land clearing during the construction process shall be limited to the maximum extent practical. The local government permit shall require recorded deed restrictions and protective covenants to ensure that development activities maintain the development consistent with the plans and specifications approved by the local governments;

(F) The project is in compliance with the riparian area protection requirements as specified in 15A NCAC 2B .0250 (Randleman Lake riparian area rule);

(G) No new development shall be allowed within 50 feet of waters affected by the Randleman riparian area rule 15A NCAC 2B .0250;

(H) New development meeting the high density option shall be located at least 100 feet from perennial waters as identified on topo or soil survey maps; however, within the area between 50 and 100 feet adjacent to the perennial water body, water dependent structures, or other structures, such as flag poles, signs and security lights, which result in only diminimus increases in impervious area and public projects such as road crossings and greenways may be allowed where no practicable alternative exists; these activities shall minimize built-upon surface

area, divert runoff away from surface waters and maximize the utilization of BMPs;

(I) For local governments that do not use the high density option, a maximum of 10 percent of each jurisdiction's portion of the watershed outside of the critical area as delineated on April 1, 1999 may be developed with new development projects and expansions to existing development of up to 70 percent built-upon surface area in addition to the new development approved in compliance with the appropriate requirements of Sub-Item (3)(b)(ii)(A) of this Rule. For expansions to existing development, the existing built-upon surface area shall not be counted toward the allowed 70 percent built-upon surface area. A local government having jurisdiction within the watershed may transfer, in whole or in part, its right to the 10 percent/70 percent land area to local government within the watershed upon submittal of a joint resolution for review by the Commission. When the designated water supply watershed area is composed of public land, such as National Forest land, local governments may count the public land acreage within the designated watershed area outside of the critical area in figuring the acreage allowed under this provision. Each project shall, to the maximum extent practicable, minimize built-upon surface area, direct stormwater runoff away from surface waters and incorporate best management practices to minimize water quality impacts;

(ii) Stormwater pollution control criteria for critical areas of the watershed:

(A) Low Density Option: Development density must be limited to either no more than one dwelling unit per two acres of single family detached residential development (or 80,000 square foot lot excluding roadway right-of-way) or six percent built-upon area for all other residential and non-residential development. Stormwater runoff shall be transported primarily by vegetated conveyances to the maximum extent practicable;

(B) High Density Option: If new development exceeds the low density option requirements as stated in Sub-Item (3)(b)(ii) of this Rule, then engineered stormwater controls must be used to control runoff from the first inch of rainfall. New residential and non residential development shall not exceed 30 percent built-upon area;

(C) No new permitted sites for land application of residuals or petroleum contaminated soils shall be allowed;

(D) No new landfills shall be allowed; and

(E) Sub-Items (3)(b)(i)(C)-(H) of this Rule also apply to the critical area.

(4) Within 12 months of the effective date of adoption of this Rule, all local governments with jurisdictions in the Randleman Lake watershed shall develop comprehensive stormwater management plans and submit those plans to the Commission for review and approval. Comprehensive stormwater management plans meeting the criteria set forth in Subparts (4)(a) through (4)(f) of this Rule shall be approved. Within six months of the Commission's approval of the local plan, subject local governments shall adopt and implement their approved plan. Those plans shall include, but not be limited to, the following:

(a) Evaluation of existing land use within Oak Hollow Lake subwatershed, High Point Lake subwatershed and Deep River 1 subwatershed in the Randleman Lake watershed with recommendations that show how overall built-upon area (for existing and future development) for each subwatershed can be minimized and high intensity land uses can be targeted away from surface waters and sensitive areas. Oak Hollow Lake subwatershed is defined as all land areas draining to Oak Hollow Lake. High Point Lake subwatershed is defined as all land areas draining to High Point Lake, East Fork Deep River and West Fork Deep River from Oak Hollow Lake Dam. Deep River 1 subwatershed is defined as all land areas draining to the Deep River from High Point Lake Dam to Freeman Mill Dam. This evaluation shall be done by the local governments having jurisdiction in those watersheds, working in cooperation with the PTRWA;

(b) Coordination between all affected jurisdictions to encourage their development in the existing urban areas. The planning effort shall include provisions for areas of contiguous open space to be

protected through conservation easements or other long-term protection measures and provisions to direct infrastructure growth towards existing urban development corridors rather than to rural lands;

(c) Evaluation of existing ordinances, municipal programs (maintenance, street cleaning, etc.) and other local policies to identify opportunities for stormwater quality improvements including reducing the amount of built-upon area that is required for uses such as parking, building setbacks, road widths and cul-de-sacs. The evaluations shall consider development options such as multiple story buildings, mixed use to encourage pedestrian travel and mass transit and an identification of municipal activities and procedures that may be modified to allow for stormwater pollution prevention opportunities;

(d) Implementation of watershed protection public education programs;

(e) Identification and removal of illegal discharges; and

(f) Identification of suitable locations for potential stormwater retrofits (such as riparian areas) that could be funded by various sources.

(5) Local governments may submit a more stringent local stormwater management program plan. Local stormwater management programs and modifications to these programs shall be kept on file by the Division of Water Quality.

(6) If a local government fails to submit an acceptable local stormwater management program plan within the time frames established in this Rule or fails to properly implement an approved plan, then stormwater management requirements for existing and new urban areas within its jurisdiction shall be administered through the NPDES municipal stormwater permitting program per 15A NCAC 2H .0126 which shall include at a minimum:

(a) Subject local governments shall be required to develop and implement comprehensive stormwater management programs for both existing and new development.

(b) These stormwater management programs shall provide all components that are required of local government stormwater programs in this Rule.

(c) Local governments that are subject to an NPDES permit shall be covered by the permit for at least one permitting cycle (five years) before they are eligible to submit a revised local stormwater management component of their water supply watershed protection program for consideration and approval by the EMC.

History Note: *Authority G.S. 143-214.1; 143-214.5; 143-214.7; 143-215.1; 143-215.3(a)(1); Eff. April 1, 1999.*

15A NCAC 02B .0252 - .0254 RESERVED FOR FUTURE CODIFICATION

15A NCAC 02B .0255 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NUTRIENT LOADING GOALS

All persons engaging in agricultural operations in the Tar-Pamlico River Basin, including those related to crops, horticulture, livestock, and poultry, shall collectively achieve and maintain certain nutrient loading levels. A management strategy to achieve this reduction is specified in Rule .0256 of this Section. These Rules apply to livestock and poultry operations above certain size thresholds in the Tar-Pamlico River Basin, in addition to requirements for animal operations set forth in general permits issued pursuant to G.S. 143-215.10C. The nutrient loading goals to be met collectively by the persons specified here are as follows:

(1) a 30 percent total nitrogen net loading reduction from 1991 loading from agriculture to the basin; and

(2) no net increase in total phosphorus loading over 1991 levels.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; Eff. April 1, 2001.*

15A NCAC 02B .0256 TAR-PAMLICO RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: AGRICULTURAL NUTRIENT CONTROL STRATEGY

Editor's Note: See SL 2001-355

(a) PURPOSE. The purpose of this Rule is to set forth a process by which agricultural operations in the Tar-Pamlico River Basin will collectively limit their nitrogen and phosphorus loading to the Pamlico estuary. The purpose is to achieve and maintain a 30 percent reduction in collective nitrogen loading from 1991 levels within five to eight years and to hold phosphorus loading at or below 1991 levels within four years of Commission approval of a phosphorus accounting methodology.

(1) PROCESS. This Rule requires farmers in the Basin to implement land management practices that collectively, on a county or watershed basis, will achieve the nutrient goals. Local committees and a Basin committee will develop strategies, coordinate activities and account for progress.

(2) LIMITATION. This Rule may not fully address the agricultural nitrogen reduction goal of the Tar-Pamlico Nutrient Sensitive Waters Strategy in that it does not address atmospheric sources of nitrogen to the Basin, including atmospheric emissions of ammonia from sources located both within and outside of the Basin. As better information becomes available from ongoing research on atmospheric nitrogen loading to the Basin from these sources, and on measures to control this loading, the Commission may undertake separate rule-making to require such measures it deems necessary from these sources to support the goals of the Tar-Pamlico Nutrient Sensitive Waters Strategy.

(b) APPLICABILITY. This Rule shall apply to all persons engaging in agricultural operations in the Tar-Pamlico River Basin except certain persons engaged in such operations for educational purposes. Persons engaged for educational purposes shall be those persons involved in secondary school or lesser grade-level activities that are a structured part of an organized program conducted by a public or private educational institution or by an agricultural organization. Educational activities shall not include research activities in support of commercial production. For the purposes of this Rule, agricultural operations are activities that relate to any of the following pursuits:

(1) The commercial production of crops or horticultural products. As used in this Rule, commercial shall mean activities conducted primarily for financial profit.

(2) Research activities in support of such commercial production.

(3) The production or management of greater than or equal to any of the following amounts of livestock or poultry at any time, excluding nursing young:

(A) 5 horses;

(B) 20 head of cattle;

(C) 25 swine;

(D) 15 sheep,

(E) 15 goats;

(F) 160 turkeys;

(G) 1,000 chickens;

(H) numbers of any other single species of livestock totaling greater than 4,000 pounds of live weight at any time; or

(I) combinations of livestock species where any species' number is greater than or equal to the number given for that species in Parts (b)(3)(A)–(H) of this Rule.

(c) METHOD FOR RULE IMPLEMENTATION. This Rule shall be implemented through a cooperative effort between a Basin Oversight Committee and Local Advisory Committees in each county or watershed. The membership, roles and responsibilities of these committees are set forth in Paragraphs (f) and (g) of this Rule. Committees' activities shall be guided by the following constraints:

(1) The Commission shall determine whether each Local Advisory Committee has achieved its nitrogen reduction goal within five years of the effective date of this Rule, and its phosphorus loading goal within four years of the date that a phosphorus accounting method is approved by the Commission, both based on the accounting process described in Paragraphs (f) and (g) of this Rule. Should the Commission determine that a Local Advisory Committee has not achieved its nitrogen goal within five years, then the Commission shall require additional BMP implementation as needed to ensure that the goal is met within eight years of the effective date of this Rule. The Commission shall similarly review compliance with the phosphorus goal four years after it approves a phosphorus accounting method, and shall require additional BMP implementation as needed to meet that goal within an additional three years from that date. All persons subject to this Rule who have not implemented BMPs in accordance with an option provided in Subparagraphs (d)(1) or (d)(2) of this Rule shall be subject to such further requirements deemed necessary by the Commission for any Local Advisory Committee that has not achieved a nutrient goal.

(2) Should a committee not form or not follow through on its responsibilities such that a local strategy is not implemented in keeping with Paragraph (g) of this Rule, the Commission may require all persons subject to this Rule in the affected area to implement BMPs as set forth in Paragraph (e) of this Rule.

(d) OPTIONS FOR MEETING RULE REQUIREMENTS. Persons subject to this Rule shall register their operations with their Local Advisory Committee according to the requirements of Paragraph (g) of this Rule within one year of the effective date of this Rule. Such persons may elect to implement any BMPs they choose that are recognized by the Basin Oversight Committee as nitrogen-reducing BMPs within five years of the effective date of this Rule. Persons who implement one of the following two

options within five years of the effective date of this Rule for nitrogen-reducing BMPs and within four years of the date that a phosphorus accounting method is approved by the Commission shall not be subject to any additional requirements that may be placed on persons under Paragraph (c) of this Rule. Persons subject to this Rule shall be responsible for implementing and maintaining the BMPs used to meet the requirements of this Rule for as long as they continue their agricultural operation. If a person ceases an operation and another person assumes that operation, the new operator shall be responsible for implementing BMPs that meet the requirements of this Paragraph.

(1) Option 1 is to implement site-specific BMPs that are accepted by the Local Advisory Committee as fully satisfying a person's obligations under this Rule based on BMP implementation needs identified in the local nutrient control strategy required under Subparagraph (g)(2) of this Rule and on nutrient reduction efficiencies established by the Basin Oversight Committee as called for under Subparagraphs (f)(2) and (f)(3) of this Rule.

(2) Option 2 is to implement standard BMPs that persons subject to this Rule choose from the alternatives established pursuant to Paragraph (e) of this Rule.

(e) STANDARD BEST MANAGEMENT PRACTICES (BMPs). Standard BMPs shall be individual BMPs or combinations of BMPs that achieve at least a 30 percent reduction in nitrogen loading and no increase in phosphorus loading relative to conditions that lack such BMPs. Standard BMPs shall be established for the purposes of this Rule by one of the following processes:

(1) The Soil and Water Conservation Commission may elect to approve, under its own authorities, standard BMP options for the Tar-Pamlico River Basin based on nutrient reduction efficiencies established by the Basin Oversight Committee pursuant to Subparagraph (f)(3) of this Rule and using criteria for nitrogen- and phosphorus-reducing BMPs as described in rules adopted by the Soil and Water Conservation Commission, including 15A NCAC 6E .0104 and 15A NCAC 6F .0104. One purpose of this process is to provide persons subject to this Rule the opportunity to work with the Soil and Water Conservation Commission in its development of standard BMP options; or

(2) In the unlikely event that the Soil and Water Conservation Commission does not approve an initial set of standard BMP options for the Tar-Pamlico River Basin within one year of the effective date of this Rule, then the Environmental Management Commission may approve standard BMP options within eighteen months of the effective date of this Rule. In that event, the standard BMP options approved by the Commission shall be designed to reduce nitrogen and phosphorus loading, as specified at the beginning of Paragraph (e) of this Rule, from agricultural sources through structural, management, or buffering farming BMPs or animal waste management plan components.

(f) BASIN OVERSIGHT COMMITTEE. The Basin Oversight Committee shall have the following membership, role and responsibilities:

(1) MEMBERSHIP. The Commission shall delegate to the Secretary the responsibility of forming a Basin Oversight Committee within two months of the effective date of this Rule. Members shall be appointed for five-year terms and shall serve at the pleasure of the Secretary. Until such time as the Commission determines that long-term maintenance of the nutrient loads is assured, the Secretary shall either reappoint members or replace members every five years. The Secretary shall solicit nominations for membership on this Committee to represent each of the following interests, and shall appoint one nominee to represent each interest. The Secretary may appoint a replacement at any time for an interest in Parts (f)(1)(F) through (f)(1)(J) of this Rule upon request of representatives of that interest:

(A) Division of Soil and Water Conservation;
(B) United States Department of Agriculture-Natural Resources Conservation Service (shall serve in an "ex-officio" non-voting capacity and shall function as a technical program advisor to the Committee);
(C) North Carolina Department of Agriculture and Consumer Services;
(D) North Carolina Cooperative Extension Service;
(E) Division of Water Quality;
(F) Environmental interests;
(G) Basinwide farming interests;
(H) Pasture-based livestock interests;
(I) Cropland farming interests; and
(J) The scientific community with experience related to water quality problems in the Tar-Pamlico River Basin.

(2) ROLE. The Basin Oversight Committee shall:

(A) Develop a tracking and accounting methodology pursuant to Subparagraph (f)(3) of this Rule. A final nitrogen methodology shall be submitted to the Commission for approval within one year after

the effective date of this Rule. A final methodology for phosphorus shall be submitted at the earliest date possible as determined by the Basin Oversight Committee with input from the technical advisory committee described in Part (f)(2)(D) of this Rule.

(B) Identify and implement future refinements to the accounting methodology as needed to reflect advances in scientific understanding, including establishment of nutrient reduction efficiencies for BMPs.

(C) Appoint a technical advisory committee within 6 months of the effective date of this Rule to inform the Basin Oversight Committee on rule-related issues. The Basin Oversight Committee shall direct the committee to take the following actions at a minimum: monitor advances in scientific understanding related to phosphorus loading, evaluate the need for additional management action to meet the phosphorus loading goal, and report its findings to the Basin Oversight Committee on an annual basis. The Basin Oversight Committee shall in turn report these findings and its recommendations to the Commission on an annual basis following the effective date of this Rule, until such time as the Commission, with input from the Basin Oversight Committee, determines that the technical advisory committee has fulfilled its purpose. The Basin Oversight Committee shall solicit nominations for this committee from the Division of Soil and Water Conservation, United States Department of Agriculture-Natural Resources Conservation Service, North Carolina Department of Agriculture and Consumer Services, North Carolina Cooperative Extension Service, Division of Water Quality, environmental interests, agricultural interests, and the scientific community with experience related to the committee's charge.

(D) Review, approve and summarize county or watershed local strategies and present these strategies to the Commission for approval within two years after the effective date of this Rule.

(E) Establish minimum requirements for, review, approve and summarize local nitrogen and phosphorus loading annual reports as described under Subparagraph (g)(4) of this Rule, and present these reports to the Commission each October, until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals.

(3) ACCOUNTING METHODOLOGY. The Basin Oversight Committee shall develop an accounting methodology that meets the following requirements:

(A) The methodology shall quantify baseline total nitrogen and phosphorus loadings from agricultural operations in each county and for the entire basin.

(B) The methodology shall include a means of tracking implementation of BMPs, including number, type, and area affected.

(C) The methodology shall include a means of estimating incremental nitrogen and phosphorus reductions from actual BMP implementation and of evaluating progress toward the nutrient goals from BMP implementation. The methodology shall include nutrient reduction efficiencies for individual BMPs and combinations of BMPs that can be implemented toward the nitrogen and phosphorus goals.

(D) The methodology shall allow for future refinements to the nutrient baseline loading determinations, and to the load reduction accounting methodology.

(E) The methodology shall provide for quantification of changes in nutrient loading due to changes in agricultural land use, modifications in agricultural activity, or changes in atmospheric nitrogen loading to the extent allowed by advances in technical understanding.

(F) The methodology shall include a method to track maintenance of the nutrient net loads after the initial eight years of this Rule, including tracking of changes in BMPs and additional BMPs to offset new or increased sources of nutrients from agricultural operations.

(g) LOCAL ADVISORY COMMITTEES. The Local Advisory Committees shall have the following membership, roles, and responsibilities:

(1) MEMBERSHIP. The Commission shall delegate to the Directors of the Division of Water Quality and the Division of Soil and Water Conservation the responsibility of forming Local Advisory Committees within two months of the effective date of this Rule. The Directors shall form Local Advisory Committees in each county (or watershed as specified by the Basin Oversight Committee) within the Tar-Pamlico River Basin. Members shall serve for terms of five years at the pleasure of the Environmental Management and Soil and Water Conservation Commissions. Until such time as the Environmental Management Commission determines that long-term maintenance of the nutrient loads is assured, the Directors shall reappoint or replace members every five years. The Directors shall solicit nominations for membership on the Local Advisory Committee that

represent each of the following interests, and shall appoint nominees that allow for representation from all interested segments of the agricultural community. The Directors may appoint a replacement at any time for an interest in Part (g)(1)(F) of this Rule upon request of representatives of that interest:

(A) Local Soil and Water Conservation District (one);
(B) Local United States Department of Agriculture- Natural Resources Conservation Service (one);
(C) Local North Carolina Department of Agriculture and Consumer Services (one);
(D) Local North Carolina Cooperative Extension Service (one);
(E) Local North Carolina Division of Soil and Water Conservation (one); and
(F) Local farmers in the county or watershed (at least two and not more than 10).

(2) ROLE. The Local Advisory Committees shall:

(A) Conduct a registration process for persons subject to this Rule. This registration process shall be completed within one year after the effective date of this Rule. It shall obtain information that shall allow Local Advisory Committees to develop local strategies in accordance with Subparagraph (g)(3) of this Rule. At minimum, the registration process shall request the type and acreage of agricultural operations, nutrient-reducing BMPs implemented since January 1, 1992 and their operational status, and the acres affected by those BMPs. It shall provide persons with information on requirements and options under this Rule, and on available technical assistance and cost share options;
(B) Designate a member agency to compile and retain copies of all individual plans produced to comply with this Rule;
(C) Develop local nutrient control strategies for agricultural operations, pursuant to Subparagraph (g)(3) of this Rule, to meet the nitrogen and phosphorus goals assigned by the Basin Oversight Committee. The nitrogen component of the control strategy shall be submitted to the Basin Oversight Committee no later than twenty-three months from the effective date of this Rule. The phosphorus component of the control strategy shall be submitted within one year of the date that the Commission approves a phosphorus accounting methodology as described in Part (f)(2)(A) of this Rule;
(D) Ensure that any changes to the design of the local strategy will continue to meet the nutrient goals of this Rule; and
(E) Submit annual reports to the Basin Oversight Committee, pursuant to Subparagraph (g)(4) of this Rule, each May until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals.

(3) LOCAL NUTRIENT CONTROL STRATEGIES. The Local Advisory Committees shall be responsible for developing county or watershed nutrient control strategies that meet the following requirements. If a Local Advisory Committee fails to submit a nutrient control strategy as required in Part (g)(2)(C) of this Rule, the Commission may develop one based on the accounting methodology that it approves pursuant to Part (f)(2)(A) of this Rule.

(A) Local nutrient control strategies shall be designed to achieve the required nitrogen reduction goals within five years after the effective date of this Rule, and to maintain those reductions in perpetuity or until such time as this Rule is revised to modify this requirement. Strategies shall be designed to meet the phosphorus loading goals within four years of the date that the Commission approves a phosphorus accounting methodology as described in Part (f)(2)(A) of this Rule.
(B) Local nutrient control strategies shall specify the numbers and types of all agricultural operations within their areas, numbers of BMPs that will be implemented by enrolled operations and acres to be affected by those BMPs, estimated nitrogen and phosphorus reductions, schedule for BMP implementation, and operation and maintenance requirements.
(C) Local nutrient control strategies may prioritize BMP implementation to establish the most efficient and effective means of achieving the nutrient goals.

(4) ANNUAL REPORTS. The Local Advisory Committees shall be responsible for submitting annual reports for their counties or watersheds. Annual reports shall be submitted to the Basin Oversight Committee each May until such time as the Commission determines that annual reports are no longer needed to assure long-term maintenance of the nutrient goals. Annual reports shall quantify progress toward the nutrient goals with sufficient detail to allow for compliance monitoring at the farm level. The Basin Oversight Committee shall determine reporting requirements to meet these objectives. Those requirements may include information on BMPs implemented by individual farms, proper BMP operation and maintenance, BMPs discontinued, changes in agricultural land use or activity, and resultant net nutrient loading changes.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; Eff. September 1, 2001. (See S.L. 2001-355)*

15A NCAC 02B .0257 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: NUTRIENT MANAGEMENT

(a) PURPOSE. The purposes of this Rule are as follows, and are to be achieved within five years from the effective date of this Rule.

(1) To contribute to a 30 percent reduction in nitrogen loading to the Pamlico estuary from nutrient application (both inorganic fertilizer and organic nutrients) in the Tar-Pamlico basin, based on 1991 levels.

(2) To contribute to a capping of phosphorus loading to the estuary at 1991 levels from nutrient application (both inorganic fertilizer and organic nutrients) in the basin.

(b) DEFINITIONS. The following definitions shall apply to terms used in this Rule.

(1) Applicator means a person who applies fertilizer to the land or the immediate supervisor of such person.

(2) Consultant means a person who is hired to provide professional advice to another person.

(c) APPLICABILITY. This Rule shall apply as follows.

(1) This Rule shall apply to the following persons:

(A) Persons who own or manage cropland areas in the Tar-Pamlico River Basin for commercial purposes who have not developed a nutrient management plan for their property pursuant to 15A NCAC 02B .0256.

(B) Persons who own or manage commercial ornamental and floriculture areas and greenhouse production areas in the Tar-Pamlico River Basin.

(C) Persons who own or manage golf courses, grassed public recreational lands, grassed road or utility rights-of-way, or other turfgrass areas in the Tar-Pamlico River Basin.

(D) Persons who own or manage lawn and garden areas in residential, commercial, or industrial developments in the Tar-Pamlico River Basin except for residential landowners who apply fertilizer to their own property.

(2) This Rule, particularly Subparagraphs (d)(1) and (d)(2) of this Rule, shall apply to applicators hired by the persons listed in Subparagraph (c)(1) of this Rule to apply fertilizer to lands in the Tar-Pamlico River Basin.

(3) This Rule, particularly Subparagraph (d)(1) of this Rule, shall apply to applicators hired by residential landowners in the Tar-Pamlico basin.

(4) This Rule, particularly Subparagraph (d)(1) of this Rule, shall apply to nutrient management consultants hired by persons listed in this Paragraph to provide nutrient management advice for lands in the Tar-Pamlico River Basin.

(d) REQUIREMENTS. Subject persons shall meet the following requirements:

(1) Persons responsible for applying nutrients to their own land or land that they manage in the Tar-Pamlico basin, applicators hired by residential landowners in the Tar-Pamlico basin, and consultants who prepare nutrient management plans for persons who own or manage land in the Tar-Pamlico basin shall either:

(A) Attend and complete nutrient management training pursuant to Paragraph (e) of this Rule; or

(B) Complete a nutrient management plan for all lands to which they apply or manage the application of nutrients, or for which they provide nutrient management advice, pursuant to Paragraph (f) of this Rule.

(2) Persons who hire an applicator to apply nutrients to the land that they own or manage shall either:

(A) Ensure that the applicator they hire has attended and completed nutrient management training pursuant to Paragraph (e) of this Rule; or

(B) Ensure that the applicator they hire has completed a nutrient management plan for the land that they own or manage pursuant to Paragraph (f) of this Rule; or

(C) Complete a nutrient management plan for the land that they own or manage pursuant to Paragraph (f) of this Rule and ensure that the applicator they hire follows this plan.

(e) NUTRIENT MANAGEMENT TRAINING. Persons who choose to meet this Rule's requirements by completing nutrient management training shall meet the following requirements.

(1) Persons subject to this Rule as of its effective date shall sign up with the Cooperative Extension Service or the Division within one year of the effective date to take the nutrient management training. Such persons shall obtain a certificate from Extension or the Division within five years from the effective date of this Rule verifying completion of training that addresses, at minimum, proper management of nitrogen and phosphorus.

(2) Persons who become subject to this Rule after its effective date shall obtain a certificate from Extension or the Division within one year from the date that they become subject verifying completion of training that addresses, at minimum, proper management of nitrogen and phosphorus.

(3) Persons who fail to sign up or to obtain the nutrient management certificate within the required timeframes or who are found by the Director to have knowingly failed to follow nutrient management requirements as referenced in Subparagraphs (f)(1)(A) – (f)(1)(C) of this Rule shall be required to develop and properly implement nutrient management plans pursuant to Paragraph (f) of this Rule.

(4) Training certificates must be kept on-site or be produced within 24 hours of a request by the Division.

(f) NUTRIENT MANAGEMENT PLANS. Persons who choose to meet this Rule's requirements by completing a nutrient management plan shall meet the following requirements.

(1) Persons who are subject to this Rule as of its effective date and persons who become subject to this Rule after its effective date shall develop a nutrient management plan that meets the following standards within five years of the effective date or within 6 months from the date that they become subject, whichever is later.

(A) Nutrient management plans for cropland shall meet the standards and specifications adopted by the NC Soil and Water Conservation Commission, including those found in 15A NCAC 06E .0104 and 15A NCAC 06F .0104, which are incorporated herein by reference, including any subsequent amendments and additions to such rules that are in place at the time that plans are approved by a technical specialist as required under Subparagraph (f)(2) of this Rule.

(B) Nutrient management plans for turfgrass shall follow the North Carolina Cooperative Extension Service guidelines in "Water Quality and Professional Lawn Care" (NCCES publication number WQMM-155), "Water Quality and Home Lawn Care" (NCCES publication number WQMM-151), or guidelines distributed by land-grant universities. Copies may be obtained from the Division of Water Quality, 512 North Salisbury Street, Raleigh, North Carolina 27626 at no cost.

(C) Nutrient management plans for nursery crops and greenhouse production shall follow the Southern Nurserymen's Association guidelines promulgated in "Best Management Practices Guide For Producing Container-Grown Plants" or guidelines distributed by land-grant universities. Copies may be obtained from the Southern Nurserymen's Association, 1000 Johnson Ferry Road, Suite E-130, Marietta, GA 30068-2100 at a cost of thirty-five dollars ($35.00). The materials related to nutrient management plans for turfgrass, nursery crops and greenhouse production are hereby incorporated by reference including any subsequent amendments and editions and are available for inspection at the Department of Environment and Natural Resources Library, 512 North Salisbury Street, Raleigh, North Carolina.

(2) The person who writes the nutrient management plan shall have the plan approved in writing by a technical specialist. Appropriate technical specialists shall be as follows.

(A) Nutrient management plans for cropland using either inorganic fertilizer or organic nutrients shall be approved by a technical specialist designated pursuant to the process and criteria specified in Rules adopted by the Soil and Water Conservation Commission for nutrient management planning, including 15A NCAC 06F .0105, excepting Subparagraph (a)(2) of that Rule.

(B) Nutrient management plans for turfgrass and nursery crops and greenhouse production shall be approved by a technical specialist designated by the Soil and Water Conservation Commission pursuant to the process and criteria specified in 15A NCAC 06F .0105, excepting Subparagraph (a)(2) of that Rule. If the Soil and Water Conservation Commission does not designate such specialists, then the Environmental Management Commission shall do so using the same process and criteria.

(3) Nutrient management plans and supporting documents must be kept on-site or be produced within 24 hours of a request by the Division.

(4) The Division shall develop model nutrient management plans in consultation with the Cooperative Extension Service. The model plans shall address both nitrogen and phosphorus, and shall address the source of nutrients, the amount of nutrient applied, the placement of nutrients, and the timing of nutrient applications.

(g) COMPLIANCE. Persons who fail to comply with this Rule are subject to enforcement measures authorized in G.S. 143-215.6A (civil penalties), G.S. 143-215.6B (criminal penalties), and G.S. 143-215.6C (injunctive relief).

(h) BASINWIDE EDUCATION. The Division shall be responsible for developing and implementing an education program that informs homeowners in the basin on proper residential nutrient management. The program shall be designed to reach as much of the residential population of the basin as practical on an ongoing basis. At a minimum, it shall emphasize fundamental nutrient

management principles as well as measures for reducing stormwater runoff from residential properties. The Division shall begin implementation of the program within three years of the effective date of this Rule.

History Note: *Authority G. S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d);*
Eff. April 1, 2001.

15A NCAC 02B .0258 TAR-PAMLICO RIVER BASIN-NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: BASINWIDE STORMWATER REQUIREMENTS

(a) PURPOSE. The purposes of this Rule are as follows.

(1) To achieve and maintain a reduction in nitrogen loading to the Pamlico estuary from lands in the Tar-Pamlico River Basin on which new development occurs. The goal of this Rule is to achieve a 30 percent reduction relative to pre-development levels;

(2) To limit phosphorus loading from these lands to the estuary. The goal of this Rule is to limit phosphorus loading to pre-development levels;

(3) To provide control for peak stormwater flows from new development lands to ensure that the nutrient processing functions of existing riparian buffers and streams are not compromised by channel erosion; and

(4) To minimize, to the greatest extent practicable, nitrogen and phosphorus loading to the estuary from existing developed areas in the basin.

(b) APPLICABILITY. This Rule shall apply to local governments in the Tar-Pamlico basin according to the following criteria.

(1) This Rule shall apply to the following municipal areas:

(A) Greenville
(B) Henderson
(C) Oxford
(D) Rocky Mount
(E) Tarboro
(F) Washington

(2) This Rule shall apply to the following counties:

(A) Beaufort
(B) Edgecombe
(C) Franklin
(D) Nash
(E) Pitt

(3) The Environmental Management Commission may designate additional local governments as subject to this Rule by amending this Rule based on the potential of those jurisdictions to contribute significant nutrient loads to the Tar-Pamlico River. At a minimum, the Commission shall review the need for additional designations as part of the Basinwide process for the Tar-Pamlico River Basin. The Commission shall consider, at a minimum, the following criteria related to local governments: population within the basin, population density, past and projected growth rates, proximity to the estuary, and the designation status of municipalities within candidate counties.

(c) REQUIREMENTS. All local governments subject to this Rule shall develop stormwater management programs for submission to and approval by the Commission according to the following minimum standards:

(1) A requirement that developers submit a stormwater management plan for all new developments proposed within their jurisdictions. These stormwater plans shall not be approved by the subject local governments unless the following criteria are met:

(A) The nitrogen load contributed by the proposed new development activity shall not exceed 70 percent of the average nitrogen load contributed by the non-urban areas in the Tar-Pamlico River basin based on land use data and nitrogen export research data. Based on 1995 land use data and available research, the nitrogen load value shall be 4.0 pounds per acre per year;

(B) The phosphorus load contributed by the proposed new development activity shall not exceed the average phosphorus load contributed by the non-urban areas in the Tar-Pamlico River basin based on land use data and phosphorus export research data. Based on 1995 land use data and available research, the phosphorus load value shall be 0.4 pounds per acre per year;

(C) The new development shall not cause erosion of surface water conveyances. At a minimum, the new development shall not result in a net increase in peak flow leaving the site from pre-development conditions for the 1-year, 24-hour storm event; and

(D) Developers shall have the option of partially offsetting their nitrogen and phosphorus loads by providing treatment of off-site developed areas. The off-site area must drain to the same classified surface water, as defined in the Schedule of Classifications, 15A NCAC 2B .0316, that the development site drains to most directly. The developer must provide legal assurance of the dedicated use of the off-site area for the purposes described here, including achievement of specified nutrient load reductions and provision for regular operation and maintenance activities, in perpetuity. The legal assurance shall include an instrument, such as a conservation easement, that maintains this restriction upon change of ownership or modification of the off-site property. Before using off-site treatment, the new development must attain a maximum nitrogen export of six pounds/acre/year for residential development and 10 pounds/acre/year for commercial or industrial development.

(2) A public education program to inform citizens of how to reduce nutrient pollution and to inform developers about the nutrient and flow control requirements set forth in Part (c)(1).

(3) A mapping program that includes major components of the municipal separate storm sewer system, waters of the State, land use types, and location of sanitary sewers.

(4) A program to identify and remove illegal discharges.

(5) A program to identify and prioritize opportunities to achieve nutrient reductions from existing developed areas.

(6) A program to ensure maintenance of BMPs implemented as a result of the provisions in Subparagraphs (c)(1) and (c)(5).

(7) A program to ensure enforcement and compliance with the provisions in Subparagraph (c)(1).

(8) Local governments may include regional or jurisdiction-wide strategies within their stormwater programs as alternative means of achieving partial nutrient removal or flow control. At a minimum, such strategies shall include demonstration that any proposed measures will not contribute to degradation of surface water quality, degradation of aquatic or wetland habitat or biota, or destabilization of conveyance structure of involved surface waters. Such local governments shall also be responsible for including appropriate supporting information to quantify nutrient and flow reductions provided by these measures and describing the administrative process for implementing such strategies.

(d) TIMEFRAME FOR IMPLEMENTATION. The timeframe for implementing the stormwater management program shall be as follows:

(1) Within 12 months of the effective date of this Rule, the Division shall submit a model local stormwater program that embodies the minimum criteria described in Paragraph (c) of this Rule to the Commission for approval. The Division shall work in cooperation with subject local governments in developing this model program.

(2) Within 12 months of the Commission's approval of the model local stormwater program or within 12 months of a local government's later designation pursuant to Subparagraph (b)(3), subject local governments shall submit their local stormwater management programs to the Commission for review and approval. These local programs shall meet or exceed the requirements in Paragraph (c) of this Rule.

(3) Within 18 months of the Commission's approval of the model local stormwater program or within 18 months of a local government's later designation pursuant to Subparagraph (b)(3), subject local governments shall adopt and implement their approved local stormwater management program.

(4) Local governments administering a stormwater management program shall submit annual reports to the Division documenting their progress and net changes to nitrogen load by October 30 of each year.

(e) COMPLIANCE. A local government that fails to submit an acceptable local stormwater management program within the timeframe established in this Rule or fails to implement an approved program shall be in violation of this Rule. In this case, the stormwater management requirements for its jurisdiction shall be administered through the NPDES municipal stormwater permitting program per 15A NCAC 2H .0126. Any local government that is subject to an NPDES municipal stormwater permit pursuant to this Rule shall:

(1) Develop and implement comprehensive stormwater management program to reduce nutrients from both existing and new development. This stormwater management program shall meet the requirements of Paragraph (c) of this Rule for new and existing development.

(2) Be subject to the NPDES permit for at least one permitting cycle (five years) before it is eligible to submit a local stormwater management program to the Commission for consideration and approval.

History Note: *Authority G.S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143-282(d); Eff. April 1, 2001.*

15A NCAC 02B .0259 TAR-PAMLICO RIVER BASIN: NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

The following is the management strategy for maintaining and protecting existing riparian buffers in the Tar-Pamlico River Basin.

(1) PURPOSE. The purpose of this Rule shall be to protect and preserve existing riparian buffers, to maintain their nutrient removal functions, in the entire Tar-Pamlico River Basin, whose surface waters are described in the Schedule of Classifications, 15A NCAC 2B .0316.

(2) DEFINITIONS. For the purpose of this Rule, these terms shall be defined as follows:

(a) "Channel" means a natural water-carrying trough cut vertically into low areas of the land surface by erosive action of concentrated flowing water or a ditch or canal excavated for the flow of water. (current definition in Forest Practice Guidelines Related to Water Quality, 15A NCAC 1I .0102)

(b) "DBH" means Diameter at Breast Height of a tree, which is measured at 4.5 feet above ground surface level.

(c) "Ditch or canal" means a man-made channel other than a modified natural stream constructed for drainage purposes that is typically dug through inter-stream divide areas. A ditch or canal may have flows that are perennial, intermittent, or ephemeral and may exhibit hydrological and biological characteristics similar to perennial or intermittent streams.

(d) "Ephemeral (stormwater) stream" means a feature that carries only stormwater in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.

(e) "Forest plantation" means an area of planted trees that may be conifers (pines) or hardwoods. On a plantation, the intended crop trees are planted rather than naturally regenerated from seed on the site, coppice (sprouting), or seed that is blown or carried into the site.

(f) "High Value Tree" means a tree that meets or exceeds the following standards: for pine species, 14-inch DBH or greater or 18-inch or greater stump diameter; and, for hardwoods and wetland species, 16-inch DBH or greater or 24-inch or greater stump diameter.

(g) "Intermittent stream" means a well-defined channel that contains water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by stormwater runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the conveyance of water.

(h) "Modified natural stream" means an on-site channelization or relocation of a stream channel and subsequent relocation of the intermittent or perennial flow as evidenced by topographic alterations in the immediate watershed. A modified natural stream must have the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(i) "Perennial stream" means a well-defined channel that contains water year round during a year of normal rainfall with the aquatic bed located below the water table for most of the year. Groundwater is the primary source of water for a perennial stream, but it also carries stormwater runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.

(j) "Perennial waterbody" means a natural or man-made basin that stores surface water permanently at depths sufficient to preclude growth of rooted plants, including lakes, ponds, sounds, non-stream estuaries and ocean. For the purpose of the State's riparian buffer protection program, the waterbody must be part of a natural drainageway (i.e., connected by surface flow to a stream).

(k) "Stream" means a body of concentrated flowing water in a natural low area or natural channel on the land surface.

(l) "Surface waters" means all waters of the state as defined in G.S. 143-212 except underground waters.

(m) "Tree" means a woody plant with a DBH equal to or exceeding five inches.

(3) APPLICABILITY. This Rule shall apply to 50-foot wide riparian buffers directly adjacent to surface waters in the Tar-Pamlico River Basin (intermittent streams, perennial streams, lakes, ponds, and estuaries), excluding

wetlands. Except as described in Sub-Item (4)(a)(iii) of this Rule, wetlands adjacent to surface waters or within 50 feet of surface waters shall be considered as part of the riparian buffer but are regulated pursuant to 15A NCAC 2H .0506. The riparian buffers protected by this Rule shall be measured pursuant to Item (4) of this Paragraph. For the purpose of this Rule, a surface water shall be present if the feature is approximately shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS). Riparian buffers adjacent to surface waters that do not appear on either of the maps shall not be subject to this Rule. Riparian buffers adjacent to surface waters that appear on the maps shall be subject to this Rule unless one of the following applies.

(a) EXEMPTION WHEN AN ON-SITE DETERMINATION SHOWS THAT SURFACE WATERS ARE NOT PRESENT. When a landowner or other affected party believes that the maps have inaccurately depicted surface waters, he or she shall consult the Division or the appropriate delegated local authority. Upon request, the Division or delegated local authority shall make on-site determinations. Any disputes over on-site determinations shall be referred to the Director in writing. A determination of the Director as to the accuracy or application of the maps is subject to review as provided in Articles 3 and 4 of G.S. 150B. Surface waters that appear on the maps shall not be subject to this Rule if an on-site determination shows that they fall into one of the following categories.

(i) Ditches and manmade conveyances other than modified natural streams unless constructed for navigation or boat access.

(ii) Manmade ponds and lakes that are located outside natural drainage ways.

(iii) Ephemeral (stormwater) streams.

(b) EXEMPTION WHEN EXISTING USES ARE PRESENT AND ONGOING. This Rule shall not apply to portions of the riparian buffer where a use is existing and ongoing according to the following:

(i) A use shall be considered existing if it was present within the riparian buffer as of January 1, 2000. Existing uses shall include, but not be limited to, agriculture, buildings, industrial facilities, commercial areas, transportation facilities, maintained lawns, utility lines and on-site sanitary sewage systems. Only the portion of the riparian buffer that contains the footprint of the existing use is exempt from this Rule. Activities necessary to maintain uses are allowed provided that no additional vegetation is removed from Zone 1, except that grazed or trampled by livestock, and existing diffuse flow is maintained. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised, the ground is stabilized and existing diffuse flow is maintained.

(ii) At the time an existing use is proposed to be converted to another use, this Rule shall apply. An existing use shall be considered to be converted to another use if any of the following applies:

(A) Impervious surface is added to the riparian buffer in locations where it did not exist previously.

(B) An agricultural operation within the riparian buffer is converted to a non-agricultural use.

(C) A lawn within the riparian buffer ceases to be maintained.

(4) ZONES OF THE RIPARIAN BUFFER. The protected riparian buffer shall have two zones as follows:

(a) Zone 1 shall consist of a vegetated area that is undisturbed except for uses provided for in Item (6) of this Rule. The location of Zone 1 shall be as follows:

(i) For intermittent and perennial streams, Zone 1 shall begin at the most landward limit of the top of bank or the rooted herbaceous vegetation and extend landward a distance of 30 feet on all sides of the surface water, measured horizontally on a line perpendicular to the surface water.

(ii) For ponds, lakes and reservoirs located within a natural drainage way, Zone 1 shall begin at the most landward limit of the normal water level or the rooted herbaceous vegetation and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water.

(iii) For surface waters within the 20 Coastal Counties (defined in 15A NCAC 2B .0202) within the jurisdiction of the Division of Coastal Management, Zone 1 shall begin at the most landward limit of:

(A) the normal high water level;

(B) the normal water level; or

(C) the landward limit of coastal wetlands as defined by the Division of Coastal Management;

and extend landward a distance of 30 feet, measured horizontally on a line perpendicular to the surface water, whichever is more restrictive.

(b) Zone 2 shall consist of a stable, vegetated area that is undisturbed except for activities and uses provided for in Item (6) of this Rule. Grading and revegetating Zone 2 is allowed provided that the health of the vegetation in Zone 1 is not compromised. Zone 2 shall begin at the outer edge of Zone 1 and extend landward 20 feet as measured horizontally on a line perpendicular to the surface water. The combined width of Zones 1 and 2 shall be 50 feet on all sides of the surface water.

(5) DIFFUSE FLOW REQUIREMENT. Diffuse flow of runoff shall be maintained in the riparian buffer by dispersing concentrated flow and reestablishing vegetation.

(a) Concentrated runoff from new ditches or manmade conveyances shall be converted to diffuse flow before the runoff enters Zone 2 of the riparian buffer.

(b) Periodic corrective action to restore diffuse flow shall be taken if necessary to impede the formation of erosion gullies.

(6) TABLE OF USES. The following chart sets out the uses and their designation under this Rule as exempt, allowable, allowable with mitigation, or prohibited. The requirements for each category are given in Item (7) of this Rule.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Airport facilities: • Airport facilities that impact equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Airport facilities that impact greater than 150 linear feet or one-third of an acre of riparian buffer		X	X	
Archaeological activities	X			
Bridges		X		
Dam maintenance activities	X			
Drainage ditches, roadside ditches and stormwater outfalls through riparian buffers: • Existing drainage ditches, roadside ditches, and stormwater outfalls provided that they are managed to minimize the sediment, nutrients and other pollution that convey to waterbodies • New drainage ditches, roadside ditches and stormwater outfalls provided that a stormwater management facility is installed to control nitrogen and attenuate flow before the conveyance discharges through the riparian buffer • New drainage ditches, roadside ditches and stormwater outfalls that do not provide control for nitrogen before discharging through the riparian buffer • Excavation of the streambed in order to bring it to the same elevation as the invert of a ditch	X	X		X X

Drainage of a pond in a natural drainage way provided that a new riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the new channel	X			
Driveway crossings of streams and other surface waters subject to this Rule: • Driveway crossings on single family residential lots that disturb equal to or less than 25 linear feet or 2,500 square feet of riparian buffer • Driveway crossings on single family residential lots that disturb greater than 25 linear feet or 2,500 square feet of riparian buffer • In a subdivision that cumulatively disturb equal to or less than 150 linear feet or one-third of an acre of riparian buffer • In a subdivision that cumulatively disturb greater than 150 linear feet or one-third of an acre of riparian buffer	X	X X	X	
Fences provided that disturbance is minimized and installation does not result in removal of forest vegetation	X			
Forest harvesting - see Item (11) of this Rule				
Fertilizer application: • One-time fertilizer application to establish replanted vegetation • Ongoing fertilizer application	X			X
Grading and revegetation in Zone 2 only provided that diffuse flow and the health of existing vegetation in Zone 1 is not compromised and disturbed areas are stabilized	X			
Greenway / hiking trails		X		
Historic preservation	X			
Landfills as defined by G..S. 130A-290.				X
Mining activities: • Mining activities that are covered by the Mining Act provided that new riparian buffers that meet the requirements of Items (4) and (5) of this Rule are established adjacent to the relocated channels • Mining activities that are not covered by the Mining Act OR where new riparian buffers that meet the requirements or Items (4) and (5) of this Rule are not established adjacent to the relocated channels • Wastewater or mining dewatering wells with approved NPDES permit	X	X	X	
Non-electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[3]		X	X	
Non-electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3]: •Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb equal to or less than 40 linear feet of riparian buffer	X	X		

with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor equal to or less than 10 feet in width • Perpendicular crossings that disturb greater than 40 linear feet but equal to or less than 150 linear feet of riparian buffer with a maintenance corridor greater than 10 feet in width • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer		X	X X	
On-site sanitary sewage systems – new ones that use ground absorption				X
Overhead electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1[1,2,3]	X X			
Overhead electric utility line perpendicular crossings of streams and other surface waters subject to this Rule[3]: • Perpendicular crossings that disturb equal to or less than 150 linear feet of riparian buffer [1] • Perpendicular crossings that disturb greater than 150 linear feet of riparian buffer [1,2]	X	X		
Periodic maintenance of modified natural streams such as canals and a grassed travelway on one side of the surface water when alternative forms of maintenance access are not practical		X		

[1] Provided that, in Zone 1, all of the following BMPs for overhead utility lines are used. If all of these BMPs are not used, then the overhead utility lines shall require a no practical alternative evaluation by the Division.

- A minimum zone of 10 feet wide immediately adjacent to the water body shall be managed such that only vegetation that poses a hazard or has the potential to grow tall enough to interfere with the line is removed.
- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain where trees are cut.
- Rip rap shall not be used unless it is necessary to stabilize a tower.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

[2] Provided that poles or towers shall not be installed within 10 feet of a water body unless the Division completes a no practical alternative evaluation.

[3] Perpendicular crossings are those that intersect the surface water at an angle between 75^{o} and 105^{o}.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Playground equipment: • Playground equipment on single family lots provided that installation and use does not result in removal of vegetation • Playground equipment installed on lands other than single-family lots or that requires removal of vegetation	X	X		

Ponds in natural drainage ways, excluding dry ponds: • New ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond		X	X	
Protection of existing structures, facilities and streambanks when this requires additional disturbance of the riparian buffer or the stream channel		X		
Railroad impacts other than crossings of streams and other surface waters subject to this Rule.			X	
Railroad crossings of streams and other surface waters subject to this Rule: • Railroad crossings that impact equal to or less than 40 linear feet of riparian buffer • Railroad crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Railroad crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X	
Removal of previous fill or debris provided that diffuse flow is maintained and any vegetation removed is restored	X			
Road impacts other than crossings of streams and other surface waters subject to this Rule			X	
Road crossings of streams and other surface waters subject to this Rule: • Road crossings that impact equal to or less than 40 linear feet of riparian buffer • Road crossings that impact greater than 40 linear feet but equal to or less than 150 linear feet or one-third of an acre of riparian buffer • Road crossings that impact greater than 150 linear feet or one-third of an acre of riparian buffer	X	X	X	
Scientific studies and stream gauging	X			
Stormwater management ponds excluding dry ponds: • New stormwater management ponds provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the pond • New stormwater management ponds where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the pond		X	X	
Stream restoration	X			
Streambank stabilization		X		
Temporary roads: • Temporary roads that disturb less than or equal to 2,500 square feet provided that vegetation is restored within six months of initial disturbance • Temporary roads that disturb greater than 2,500 square feet provided that vegetation is restored within six months of initial disturbance	X	X		

disturbance • Temporary roads used for bridge construction or replacement provided that restoration activities such as soil stabilization and revegetation, occur immediately after construction		X		
Temporary sediment and erosion control devices: • In Zone 2 only provided that the vegetation in Zone 1 is not compromised and that discharge is released as diffuse flow in accordance with Item (5) of this Rule • In Zones 1 and 2 to control impacts associated with uses approved by the Division or that have received a variance provided that sediment and erosion control for upland areas is addressed to the maximum extent practical outside the buffer • In-stream temporary erosion and sediment control measures for work within a stream channel	X X	X		
Underground electric utility lines: • Impacts other than perpendicular crossings in Zone 2 only[3] • Impacts other than perpendicular crossings in Zone 1 [4]	X X			
Underground electric utility line perpendicular crossings of streams and other surface waters subject to this Rule: • Perpendicular crossings that disturb less than or equal to 40 linear feet of riparian buffer [4] • Perpendicular crossings that disturb greater than 40 linear feet of riparian buffer [4]	X	X		

[4] Provided that, in Zone 1, all of the following BMPs for underground utility lines are used. If all of these BMPs are not used, then the underground utility line shall require a no practical alternative evaluation by the Division.

- Woody vegetation shall be cleared by hand. No land grubbing or grading is allowed.
- Vegetative root systems shall be left intact to maintain the integrity of the soil. Stumps shall remain, except in the trench, where trees are cut.
- Underground cables shall be installed by vibratory plow or trenching.
- The trench shall be backfilled with the excavated soil material immediately following cable installation.
- No fertilizer shall be used other than a one-time application to re-establish vegetation.
- Construction activities shall minimize the removal of woody vegetation, the extent of the disturbed area, and the time in which areas remain in a disturbed state.
- Active measures shall be taken after construction and during routine maintenance to ensure diffuse flow of stormwater through the buffer.
- In wetlands, mats shall be utilized to minimize soil disturbance.

	Exempt	Allowable	Allowable with Mitigation	Prohibited
Vegetation management: • Emergency fire control measures provided that topography is restored • Periodic mowing and harvesting of plant products in Zone 2 only • Planting vegetation to enhance the riparian buffer • Pruning forest vegetation provided that the health and function of the forest vegetation is not compromised • Removal of individual trees which are in danger of causing damage to dwellings, other structures or human life • Removal or poison ivy	X X X X X			

• Removal of understory nuisance vegetation as defined in: Smith, Cherri L. 1998. Exotic Plant Guidelines. Dept. of Environment and Natural Resources. Division of Parks and Recreation. Raleigh, NC. Guideline #30	X X			
Water dependent structures as defined in 15A NCAC 2B .0202		X		
Water supply reservoirs: • New reservoirs provided that a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is established adjacent to the reservoir • New reservoirs where a riparian buffer that meets the requirements of Items (4) and (5) of this Rule is NOT established adjacent to the reservoir		X	X	
Water wells	X			
Wetland restoration	X			

(7) REQUIREMENTS FOR CATEGORIES OF USES. Uses designated as exempt, allowable, allowable with mitigation and prohibited in Item (6) of this Rule shall have the following requirements:

(a) EXEMPT. Uses designated as exempt are allowed within the riparian buffer. Exempt uses shall be designed, constructed and maintained to minimize soil disturbance and to provide the maximum water quality protection practicable. In addition, exempt uses shall meet requirements listed in Item (6) of this Rule for the specific use.

(b) ALLOWABLE. Uses designated as allowable may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(c) ALLOWABLE WITH MITIGATION. Uses designated as allowable with mitigation may proceed within the riparian buffer provided that there are no practical alternatives to the requested use pursuant to Item (8) of this Rule and an appropriate mitigation strategy has been approved pursuant to Item (10) of this Rule. These uses require written authorization from the Division or the delegated local authority.

(d) PROHIBITED. Uses designated as prohibited may not proceed within the riparian buffer unless a variance is granted pursuant to Item (9) of this Rule. Mitigation may be required as one condition of a variance approval.

(8) DETERMINATION OF "NO PRACTICAL ALTERNATIVES." Persons who wish to undertake uses designated as allowable or allowable with mitigation shall submit a request for a "no practical alternatives" determination to the Division or to the delegated local authority. The applicant shall certify that the criteria identified in Sub-Item (8)(a) of this Rule are met. The Division or the delegated local authority shall grant an Authorization Certificate upon a "no practical alternatives" determination. The procedure for making an Authorization Certificate shall be as follows:

(a) For any request for an Authorization Certificate, the Division or the delegated local authority shall review the entire project and make a finding of fact as to whether the following requirements have been met in support of a "no practical alternatives" determination:

(i) The basic project purpose cannot be practically accomplished in a manner that would better minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(ii) The use cannot practically be reduced in size or density, reconfigured or redesigned to better minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(iii) Best management practices shall be used if necessary to minimize disturbance, preserve aquatic life and habitat, and protect water quality.

(b) Requests for an Authorization Certificate shall be reviewed and either approved or denied within 60 days of receipt of a complete submission based on the criteria in Sub-Item (8)(a) of this Rule by either the Division or the delegated local authority. Failure to issue an approval or denial within 60 days shall constitute that the applicant has demonstrated "no practical alternatives." The Division or the delegated local authority may attach conditions to the Authorization Certificate that support the purpose, spirit and intent of the riparian buffer protection program. Complete submissions shall include the following:

(i) The name, address and phone number of the applicant;
(ii) The nature of the activity to be conducted by the applicant;
(iii) The location of the activity, including the jurisdiction;
(iv) A map of sufficient detail to accurately delineate the boundaries of the land to be utilized in carrying out the activity, the location and dimensions of any disturbance in riparian buffers associated with the activity, and the extent of riparian buffers on the land;
(v) An explanation of why this plan for the activity cannot be practically accomplished, reduced or reconfigured to better minimize disturbance to the riparian buffer, preserve aquatic life and habitat and protect water quality; and
(vi) Plans for any best management practices proposed to be used to control the impacts associated with the activity.

(c) Any disputes over determinations regarding Authorization Certificates shall be referred to the Director for a decision. The Director's decision is subject to review as provided in Articles 3 and 4 of G.S. 150B.

(9) VARIANCES. Persons who wish to undertake uses designated as prohibited may pursue a variance. The Division or the appropriate delegated local authority may grant minor variances. The variance request procedure shall be as follows:

(a) For any variance request, the Division or the delegated local authority shall make a finding of fact as to whether the following requirements have been met:
(i) There are practical difficulties or unnecessary hardships that prevent compliance with the strict letter of the riparian buffer protection requirements. Practical difficulties or unnecessary hardships shall be evaluated in accordance with the following:
(A) If the applicant complies with the provisions of this Rule, he/she can secure no reasonable return from, nor make reasonable use of, his/her property. Merely proving that the variance would permit a greater profit from the property shall not be considered adequate justification for a variance. Moreover, the Division or delegated local authority shall consider whether the variance is the minimum possible deviation from the terms of this Rule that shall make reasonable use of the property possible.
(B) The hardship results from application of this Rule to the property rather than from other factors such as deed restrictions or other hardship.
(C) The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.
(D) The applicant did not cause the hardship by knowingly or unknowingly violating this Rule.
(E) The applicant did not purchase the property after the effective date of this Rule, and then request an appeal.
(F) The hardship is unique to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice;
(ii) The variance is in harmony with the general purpose and intent of the State's riparian buffer protection requirements and preserves its spirit; and
(iii) In granting the variance, the public safety and welfare have been assured, water quality has been protected, and substantial justice has been done.

(b) MINOR VARIANCES. A minor variance request pertains to activities that are proposed only to impact any portion of Zone 2 of the riparian buffer. Minor variance requests shall be reviewed and approved based on the criteria in Sub-Item (9)(a) of this Rule by the either the Division or the delegated local authority pursuant to G.S. 153A-Article 18, or G.S. 160A-Article 19. The Division or the delegated local authority may attach conditions to the variance approval that support the purpose, spirit and intent of the riparian buffer protection program. Requests for appeals of decisions made by the Division shall be made to the Office of Administrative Hearings. Request for appeals made by the delegated local authority shall be made to the appropriate Board of Adjustment under G.S. 160A-388 or G.S. 153A-345.

(c) MAJOR VARIANCES. A major variance request pertains to activities that are proposed to impact any portion of Zone 1 or any portion of both Zones 1 and 2 of the riparian buffer. If the Division or the delegated local authority has determined that a major variance request meets the requirements in Sub-Item (9)(a) of this Rule, then it shall prepare a preliminary finding and submit it to the Commission. Preliminary findings on major variance requests shall be reviewed by the Commission within 90 days after receipt by the Director. Requests for appeals of determinations that the requirements of Sub-Item (9)(a) of this Paragraph have not been met shall be made to the Office of Administrative Hearings for determinations made by the Division or the appropriate Board of Adjustments under G.S. 160A-388 or G.S. 153A-345 for determinations made by the delegated local authority. The purpose of the Commission's review is to determine if it agrees that the requirements in Sub-Item (9)(a) of this Rule have been met. Requests for appeals of decisions made by the Commission shall be made to the Office of Administrative Hearings. The following actions shall be taken depending on the Commission's decision on the major variance request:

(i) Upon the Commission's approval, the Division or the delegated local authority shall issue a final decision granting the major variance.

(ii) Upon the Commission's approval with conditions or stipulations, the Division or the delegated local authority shall issue a final decision, which includes these conditions or stipulations.

(iii) Upon the Commission's denial, the Division or the delegated local authority shall issue a final decision denying the major variance.

(10) MITIGATION. Persons who wish to undertake uses designated as allowable with mitigation shall meet the following requirements in order to proceed with their proposed use.

(a) Obtain a determination of "no practical alternatives" to the proposed use pursuant to Item (8) of this Rule.

(b) Obtain approval for a mitigation proposal pursuant to 15A NCAC 2B .0260.

(11) REQUIREMENTS SPECIFIC TO FOREST HARVESTING. The following requirements shall apply for forest harvesting operations and practices.

(a) The following measures shall apply in the entire riparian buffer:

(i) Logging decks and sawmill sites shall not be placed in the riparian buffer.

(ii) Access roads and skid trails shall be prohibited except for temporary and permanent stream crossings established in accordance with 15A NCAC 1I .0203. Temporary stream crossings shall be permanently stabilized after any site disturbing activity is completed.

(iii) Timber felling shall be directed away from the stream or water body.

(iv) Skidding shall be directed away from the stream or water body and shall be done in a manner that minimizes soil disturbance and prevents the creation of channels or ruts.

(v) Individual trees may be treated to maintain or improve their health, form or vigor.

(vi) Harvesting of dead or infected trees or application of pesticides necessary to prevent or control extensive tree pest and disease infestation shall be allowed. These practices must be approved by the Division of Forest Resources for a specific site. The Division of Forest Resources must notify the Division of all approvals.

(vii) Removal of individual trees that are in danger of causing damage to structures or human life shall be allowed.

(viii) Natural regeneration of forest vegetation and planting of trees, shrubs, or ground cover plants to enhance the riparian buffer shall be allowed provided that soil disturbance is minimized. Plantings shall consist primarily of native species.

(ix) High intensity prescribed burns shall not be allowed.

(x) Application of fertilizer shall not be allowed except as necessary for permanent stabilization. Broadcast application of fertilizer or herbicides to the adjacent forest stand shall be conducted so that the chemicals are not applied directly to or allowed to drift into the riparian buffer.

(b) In Zone 1, forest vegetation shall be protected and maintained. Selective harvest as provided for below is allowed on forest lands that have a deferment for use value under forestry in accordance with G.S. 105-277.2 through G.S. 277.6 or on forest lands that have a forest management plan prepared or approved by a registered professional forester. Copies of either the approval of the

deferment for use value under forestry or the forest management plan shall be produced upon request. For such forest lands, selective harvest is allowed in accordance with the following:

(i) Tracked or wheeled vehicles are not permitted except at stream crossings designed, constructed and maintained in accordance with 15A NCAC 1I .0203.

(ii) Soil disturbing site preparation activities are not allowed.

(iii) Trees shall be removed with the minimum disturbance to the soil and residual vegetation.

(iv) The following provisions for selective harvesting shall be met:

(A) The first 10 feet of Zone 1 directly adjacent to the stream or waterbody shall be undisturbed except for the removal of individual high value trees as defined provided that no trees with exposed primary roots visible in the streambank be cut.

(B) In the outer 20 feet of Zone 1, a maximum of 50 percent of the trees greater than five inches dbh may be cut and removed. The reentry time for harvest shall be no more frequent than every 15 years, except on forest plantations where the reentry time shall be no more frequent than every five years. In either case, the trees remaining after harvest shall be as evenly spaced as possible.

(C) In Zone 2, harvesting and regeneration of the forest stand shall be allowed provided that sufficient ground cover is maintained to provide for diffusion and infiltration of surface runoff.

(12) REQUIREMENTS SPECIFIC TO LOCAL GOVERNMENTS WITH STORMWATER PROGRAMS FOR NITROGEN CONTROL. Local governments in the Tar-Pamlico River Basin that are required to have local stormwater programs to control nitrogen loading shall have two options for ensuring protection of riparian buffers on new developments within their jurisdictions as follows.

(a) Obtain authority to implement a local riparian buffer protection program pursuant to 15A NCAC 2B .0261.

(b) Refrain from issuing local approvals for new development projects unless either:

(i) The person requesting the approval does not propose to impact the riparian buffer of a surface water that appears on either the most recent versions of the soil survey maps prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent versions of the 1:24,000 scale (7.5 minute quadrangle) topographic maps prepared by the United States Geologic Survey (USGS).

(ii) The person requesting the approval proposes to impact the riparian buffer of a surface water that appears on the maps described in Sub-Item (12)(b)(i) of this Paragraph and either:

(A) Has received an on-site determination from the Division pursuant to Sub-Item (3)(a) of this Rule that surface waters are not present;

(B) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule for uses designated as Allowable under this Rule;

(C) Has received an Authorization Certificate from the Division pursuant to Item (8) of this Rule and obtained the Division's approval on a mitigation plan pursuant to Item (10) of this Rule for uses designated as Allowable with Mitigation under this Rule; or

(D) Has received a variance from the Commission pursuant to Item (9) of this Rule.

(13) OTHER LAWS, REGULATIONS AND PERMITS. In all cases, compliance with this Rule does not preclude the requirement to comply with all federal, state and local regulations and laws.

History Note: *Authority 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); S.L. 1999, c. 329, s. 7.1;*
Temporary Adoption Eff. January 1, 2000;
Eff. August 1, 2000.

15A NCAC 02B .0260 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: MITIGATION PROGRAM FOR PROTECTION AND MAINTENANCE OF RIPARIAN BUFFERS

The following are requirements for the Riparian Buffer Mitigation Program for the Tar-Pamlico Basin:

(1) PURPOSE. The purpose of this Rule is to set forth the mitigation requirements that apply to the riparian buffer protection program in the Tar-Pamlico Basin, as described in Rule 15A NCAC 2B .0259, and whose surface waters are described in the Schedule of Classifications, 15A NCAC 2B .0316.

(2) APPLICABILITY. This Rule applies to persons who wish to impact a riparian buffer in the Tar-Pamlico Basin when one of the following applies:

(a) A person has received an Authorization Certificate pursuant to 15A NCAC 2B .0259 for a proposed use that is designated as "allowable with mitigation."

(b) A person has received a variance pursuant to 15A NCAC 2B .0259 and is required to perform mitigation as a condition of a variance approval.

(3) THE AREA OF MITIGATION. The required area of mitigation shall be determined by either the Division or the delegated local authority according to the following:

(a) The impacts in square feet to each zone of the riparian buffer shall be determined by the Division or the delegated local authority by adding the following:

(i) The area of the footprint of the use causing the impact to the riparian buffer.

(ii) The area of the boundary of any clearing and grading activities within the riparian buffer necessary to accommodate the use.

(iii) The area of any ongoing maintenance corridors within the riparian buffer associated with the use.

(b) The required area of mitigation shall be determined by applying the following multipliers to the impacts determined in Sub-item (3)(a) of this Paragraph to each zone of the riparian buffer:

(i) Impacts to Zone 1 of the riparian buffer shall be multiplied by 3.

(ii) Impacts to Zone 2 of the riparian buffer shall be multiplied by 1.5.

(iii) Impacts to wetlands within Zones 1 and 2 of the riparian buffer that are subject to mitigation under 15A NCAC 2H .0506 shall comply with the mitigation ratios in 15A NCAC 2H .0506.

(4) THE LOCATION OF MITIGATION. The mitigation effort shall be located the same distance from the Pamlico River estuary as the proposed impact, or closer to the estuary than the impact, and as close to the location of the impact as feasible.

(5) ISSUANCE OF THE MITIGATION DETERMINATION. The Division or the delegated local authority shall issue a mitigation determination that specifies the required area and location of mitigation pursuant to Items (3) and (4) of this Rule.

(6) OPTIONS FOR MEETING THE MITIGATION DETERMINATION. The mitigation determination made pursuant to Item (5) of this Rule may be met through one of the following options:

(a) Payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule.

(b) Donation of real property or of an interest in real property pursuant to Item (8) of this Rule.

(c) Restoration or enhancement of a non-forested riparian buffer. This shall be accomplished by the applicant after submittal and approval of a restoration plan pursuant to Item (9) of this Rule.

(7) PAYMENT TO THE RIPARIAN BUFFER RESTORATION FUND. Persons who choose to satisfy their mitigation determination by paying a compensatory mitigation fee to the Riparian Buffer Restoration Fund shall meet the following requirements:

(a) SCHEDULE OF FEES: The amount of payment into the Fund shall be determined by multiplying the acres or square feet of mitigation determination made pursuant to Item (5) of this Rule by ninety-six cents per square foot or forty-one thousand, six hundred and twenty-five dollars per acre.

(b) The required fee shall be submitted to the Division of Water Quality, Wetlands Restoration Program, 1619 Mail Service Center, Raleigh, NC 27699-1619 prior to any activity that results in the removal or degradation of the protected riparian buffer for which a “no practical alternatives” determination has been made.

(c) The payment of a compensatory mitigation fee may be fully or partially satisfied by donation of real property interests pursuant to Item (8) of this Rule.

(d) The Division of Water Quality shall review the fee outlined in Sub-item (7)(a) of this Rule every two years and shall compare it to the actual cost of restoration activities conducted by the Department, including site identification, planning, implementation, monitoring and maintenance costs. Based upon this biennial review, the Division of Water Quality shall recommend revisions to Sub-item (7)(a) of this Rule when adjustments to this Schedule of Fees are deemed necessary.

(8) DONATION OF PROPERTY. Persons who choose to satisfy their mitigation determination by donating real property or an interest in real property shall meet the following requirements:

(a) The donation of real property interests may be used to either partially or fully satisfy the payment of a compensatory mitigation fee to the Riparian Buffer Restoration Fund pursuant to Item (7) of this Rule. The value of the property interest shall be determined by an appraisal performed in accordance with Sub-item (8)(d)(iv) of this Rule. The donation shall satisfy the mitigation determination if the appraised value of the donated property interest is equal to or greater than the required fee. If the appraised value of the donated property interest is less than the required fee calculated pursuant to Sub-item (7)(a) of this Rule, the applicant shall pay the remaining balance due.

(b) The donation of conservation easements to satisfy compensatory mitigation requirements shall be accepted only if the conservation easement is granted in perpetuity.

(c) Donation of real property interests to satisfy the mitigation determination shall be accepted only if such property meets all of the following requirements:

(i) The property shall be located within an area that is identified as a priority for restoration in the Basinwide Wetlands and Riparian Restoration Plan developed by the Department pursuant to G.S. 143-214.10 or shall be located at a site that is otherwise consistent with the goals outlined in the Basinwide Wetlands and Riparian Restoration Plan.

(ii) The property shall contain riparian buffers not currently protected by the State's riparian buffer protection program that are in need of restoration.

(iii) The restorable riparian buffer on the property shall have a minimum length of 1000 linear feet along a surface water and a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(iv) The size of the restorable riparian buffer on the property to be donated shall equal or exceed the acreage of riparian buffer required to be mitigated under the mitigation responsibility determined pursuant to Item (3) of this Rule.

(v) The property shall not require excessive measures for successful restoration, such as removal of structures or infrastructure. Restoration of the property shall be capable of fully offsetting the adverse impacts of the requested use.

(vi) The property shall be suitable to be successfully restored, based on existing hydrology, soils, and vegetation;

(vii) The estimated cost of restoring and maintaining the property shall not exceed the value of the property minus site identification and land acquisition costs.

(ix) The property shall not contain any building, structure, object, site, or district that is listed in the National Register of Historic Places established pursuant to Public Law 89-665, 16 U.S.C. 470 as amended.

(x) The property shall not contain any hazardous substance or solid waste.

(xi) The property shall not contain structures or materials that present health or safety problems to the general public. If wells, septic, water or sewer connections exist, they shall be filled, remediated or closed at owner's expense in accordance with state and local health and safety regulations.

(xii) The property and adjacent properties shall not have prior, current, and known future land use that would inhibit the function of the restoration effort.

(xiii) The property shall not have any encumbrances or conditions on the transfer of the property interests.

(d) At the expense of the applicant or donor, the following information shall be submitted to the Division with any proposal for donations or dedications of interest in real property:

(i) Documentation that the property meets the requirements laid out in Sub-Item (8)(c) of this Rule.

(ii) US Geological Survey 1:24,000 (7.5 minute) scale topographic map, county tax map, USDA Natural Resource Conservation Service County Soil Survey Map, and county road map showing the location of the property to be donated along with information on existing site conditions, vegetation types, presence of existing structures and easements.

(iii) A current property survey performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the State Board of Registration for Professional Engineers and Land Surveyors in "Standards of

Practice for Land Surveying in North Carolina." Copies may be obtained from the North Carolina State Board of Registration for Professional Engineers and Land Surveyors, 3620 Six Forks Road, Suite 300, Raleigh, North Carolina 27609.

(iv) A current appraisal of the value of the property performed in accordance with the procedures of the North Carolina Department of Administration, State Property Office as identified by the Appraisal Board in the "Uniform Standards of Professional North Carolina Appraisal Practice." Copies may be obtained from the Appraisal Foundation, Publications Department, P.O. Box 96734, Washington, D.C. 20090-6734.

(v) A title certificate.

(9) RIPARIAN BUFFER RESTORATION OR ENHANCEMENT. Persons who choose to meet their mitigation requirement through riparian buffer restoration or enhancement shall meet the following requirements:

(a) The applicant may restore or enhance a non-forested riparian buffer if either of the following applies:

(i) The area of riparian buffer restoration is equal to the required area of mitigation determined pursuant to Item (3) of this Rule.

(ii) The area of riparian buffer enhancement is three times larger than the required area of mitigation determined pursuant to Item (3) of this Rule.

(b) The location of the riparian buffer restoration or enhancement shall comply with the requirements in Item (4) of this Rule.

(c) The riparian buffer restoration or enhancement site shall have a minimum width of 50 feet as measured horizontally on a line perpendicular to the surface water.

(d) The applicant shall first receive an Authorization Certificate for the proposed use according to the requirements of 15A NCAC 2B .0259. After receiving this determination, the applicant shall submit a restoration or enhancement plan for approval by the Division. The restoration or enhancement plan shall contain the following.

(i) A map of the proposed restoration or enhancement site.

(ii) A vegetation plan. The vegetation plan shall include a minimum of at least two native hardwood tree species planted at a density sufficient to provide 320 trees per acre at maturity.

(iii) A grading plan. The site shall be graded in a manner to ensure diffuse flow through the riparian buffer.

(iv) A fertilization plan.

(v) A schedule for implementation.

(e) Within one year after the Division has approved the restoration or enhancement plan, the applicant shall present proof to the Division that the riparian buffer has been restored or enhanced. If proof is not presented within this timeframe, then the person shall be in violation of the State's or the delegated local authority's riparian buffer protection program.

(f) The mitigation area shall be placed under a perpetual conservation easement that will provide for protection of the property's nutrient removal functions.

(g) The applicant shall submit annual reports for a period of five years after the restoration or enhancement showing that the trees planted have survived and that diffuse flow through the riparian buffer has been maintained. The applicant shall replace trees that do not survive and restore diffuse flow if needed during that five-year period.

History Note: *Authority 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); S.L. 1999, c. 329, s. 7.1;*
Temporary Adoption Eff. January 1, 2000;
Eff. August 1, 2000.

15A NCAC 02B .0261 TAR-PAMLICO RIVER BASIN - NUTRIENT SENSITIVE WATERS MANAGEMENT STRATEGY: DELEGATION OF AUTHORITY FOR THE PROTECTION AND MAINTENANCE OF EXISTING RIPARIAN BUFFERS

This Rule sets out the following requirements for delegation of the responsibility for implementing and enforcing the Tar-Pamlico Basin riparian buffer protection program, as described in Rule 15A NCAC 2B .0259, to local governments:

(1) PROCEDURES FOR GRANTING AND RESCINDING DELEGATION. The Commission shall grant and rescind local government delegation of the Tar-Pamlico River Basin Riparian Buffer Protection requirements, as described in Rule 15A NCAC 2B. 0259, according to the following procedures.

(a) Local governments within the Tar-Pamlico River Basin may submit a written request to the Commission for authority to implement and enforce the Tar-Pamlico Basin riparian buffer protection requirements within their jurisdiction. The written request shall be accompanied by information which shows:

(i) The local government has land use jurisdiction for the riparian buffer demonstrated by delineating the local land use jurisdictional boundary on USGS 1:24,000 topographical map(s) or other finer scale map(s);

(ii) The local government has the administrative organization, staff, legal authority, financial and other resources necessary to implement and enforce the Tar-Pamlico Basin riparian buffer protection requirements based on its size and projected amount of development;

(iii) The local government has adopted ordinances, resolutions, or regulations necessary to establish and maintain the Tar-Pamlico Basin riparian buffer protection requirements; and

(iv) The local government has provided a plan to address violations with appropriate remedies and actions including, but not limited to, civil or criminal remedies that shall restore buffer nutrient removal functions on violation sites and provide a deterrent against the occurrence of future violations.

(b) Within 90 days after the Commission has received the request for delegation, the Commission shall notify the local government whether it has been approved, approved with modifications, or denied.

(c) The Commission, upon determination that a delegated local authority is failing to implement or enforce the Tar-Pamlico Basin riparian buffer protection requirements in keeping with a request approved under Sub-item (1)(b) of this Rule, shall notify the delegated local authority in writing of the local program's inadequacies. If the delegated local authority has not corrected the deficiencies within 90 days of receipt of the written notification, then the Commission shall rescind the delegation of authority to the local government and shall implement and enforce the Tar-Pamlico Basin riparian buffer protection requirements.

(d) The Commission may delegate its duties and powers for granting and rescinding local government delegation of the Tar-Pamlico Basin riparian buffer protection requirements, in whole or in part, to the Director.

(2) APPOINTMENT OF A RIPARIAN BUFFER PROTECTION ADMINISTRATOR. Upon receiving delegation, local governments shall appoint a Riparian Buffer Protection Administrator who shall coordinate the implementation and enforcement of the program. The Administrator shall attend an initial training session by the Division and subsequent annual training sessions. The Administrator shall ensure that local government staff working directly with the program receive training to understand, implement and enforce the program.

(3) PROCEDURES FOR USES WITHIN RIPARIAN BUFFERS THAT ARE ALLOWABLE AND ALLOWABLE WITH MITIGATION. Upon receiving delegation, local authorities shall review proposed uses within the riparian buffer and issue approvals if the uses meet the Tar-Pamlico Basin riparian buffer protection requirements. Delegated local authorities shall issue an Authorization Certificate for uses if the proposed use meets the Tar-Pamlico Basin riparian buffer protection requirements, or provides for appropriate mitigated provisions to the Tar-Pamlico Basin riparian buffer protection requirements. The Division may challenge a decision made by a delegated local authority for a period of 30 days after the Authorization Certificate is issued. If the Division does not challenge an Authorization Certificate within 30 days of issuance, then the delegated local authority's decision shall stand.

(4) VARIANCES. After receiving delegation, local governments shall review variance requests, provide approvals for minor variance requests and make recommendations to the Commission for major variance requests pursuant to the Tar-Pamlico Basin riparian buffer protection program.

(5) LIMITS OF DELEGATED LOCAL AUTHORITY. The Commission shall have jurisdiction to the exclusion of local governments to implement the Tar-Pamlico Basin riparian buffer protection requirements for the following types of activities:

(a) Activities conducted under the authority of the State;

(b) Activities conducted under the authority of the United States;

(c) Activities conducted under the authority of multiple jurisdictions;

(d) Activities conducted under the authority of local units of government.

(6) RECORD-KEEPING REQUIREMENTS. Delegated local authorities shall maintain on-site records for a minimum of 5 years. Delegated local authorities must furnish a copy of these records to the Director within 30 days of receipt of a written request for the records. The Division shall inspect local riparian buffer protection programs to ensure that the programs are being implemented and enforced in keeping with a request approved under Sub-item (1)(b) of this Rule. Each delegated local authority's records shall include the following:

(a) A copy of variance requests;
(b) The variance request's finding of fact;
(c) The result of the variance proceedings;
(d) A record of complaints and action taken as a result of the complaint;
(e) Records for stream origin calls and stream ratings; and
(f) Copies of request for authorization, records approving authorization and Authorization Certificates.

History Note: *Authority G S. 143-214.1; 143-214.7; 143-215.3(a)(1); 143-215.6A; 143-215.6B; 143-215.6C; 143B-282(d); S.L. 1999; c. 329, s. 7.1;*
Temporary Adoption Eff. January 1, 2000;
Eff. August 1, 2000.

SECTION .0300 - ASSIGNMENT OF STREAM CLASSIFICATIONS

15A NCAC 02B .0301 CLASSIFICATIONS: GENERAL

(a) Schedule of Classifications. The classifications assigned to the waters of the State of North Carolina are set forth in the schedules of classifications and water quality standards assigned to the waters of the river basins of North Carolina, 15A NCAC 2B .0302 to .0317. These classifications are based upon the existing or contemplated best usage of the various streams and segments of streams in the basin, as determined through studies and evaluations and the holding of public hearings for consideration of the classifications proposed.

(b) Stream Names. The names of the streams listed in the schedules of assigned classifications were taken as far as possible from United States Geological Survey topographic maps. Where topographic maps were unavailable, U.S. Corps of Engineers maps, U.S. Department of Agriculture soil maps, and North Carolina highway maps were used for the selection of stream names.

(c) Classifications. The classifications assigned to the waters of North Carolina are denoted by the letters WS-I, WS-II, WS-III, WS-IV, WS-V, B, C, SA, SB, and SC in the column headed "class." A brief explanation of the "best usage" for which the waters in each class must be protected is given as follows:

Fresh Waters

Class WS-I: waters protected as water supplies which are in natural and undeveloped watersheds; in public ownership; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-II: waters protected as water supplies which are generally in predominantly undeveloped watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-III: waters protected as water supplies which are generally in low to moderately developed watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-IV: waters protected as water supplies which are generally in moderately to highly developed watersheds; point source discharges of treated wastewater are permitted pursuant to Rules .0104 and .0211 of this Subchapter; local programs to control nonpoint source and stormwater discharge of pollution are required; suitable for all Class C uses;

Class WS-V: waters protected as water supplies which are generally upstream and draining to Class WS-IV waters or waters previously used for drinking water supply purposes or waters used by industry to supply their employees, but not municipalities or counties, with a raw drinking water supply source, although this type of use is not restricted to a WS-V classification; no categorical restrictions on watershed development or treated wastewater discharges are required, however, the Commission or its designee may apply appropriate management requirements as deemed necessary for the protection of downstream receiving waters (15A NCAC 2B .0203); suitable for all Class C uses;

Class B: primary recreation and any other usage specified by the "C" classification;

Class C: aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture.

Tidal Salt Waters:

Class SA: shellfishing for market purposes and any other usage specified by the "SB" and "SC" classification;
Class SB: primary recreation and any other usage specified by the "SC" classification;
Class SC: aquatic life propagation and survival, fishing, wildlife, and secondary recreation.

Supplemental Classifications

Trout Waters: Suitable for natural trout propagation and maintenance of stocked trout;
Swamp Waters: Waters which have low velocities and other natural characteristics which are different from adjacent streams;
NSW: Nutrient Sensitive Waters which require limitations on nutrient inputs;
HQW: High Quality Waters which are waters that are rated as excellent based on biological and physical/chemical characteristics through division monitoring or special studies, native and special native trout waters (waters and their tributaries) designated by the Wildlife Resources Commission, primary nursery areas (PNA) designated by the Marine Fisheries Commission and other functional nursery areas designated by the Wildlife Resources Commission, critical habitat areas designated by the Wildlife Resources Commission or the Department of Agriculture, all water supply watersheds which are either classified as WS-I or WS-II or those for which a formal petition for reclassification as WS-I or WS-II has been received from the appropriate local government and accepted by the Division of Environmental Management and all Class SA waters.
ORW: Outstanding Resource Waters which are unique and special waters of exceptional state or national recreational or ecological significance which require special protection to maintain existing uses.
FWS: Future Water Supply Waters which are waters intended for future drinking water supply purposes.

(d) Water Quality Standards. The water quality standards applicable to each classification assigned are those established in 15A NCAC 2B .0200, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, as adopted by the North Carolina Environmental Management Commission.
(e) Index Number.
(1) Reading the Index Number. The index number appearing in the column so designated is an identification number assigned to each stream or segment of a stream, indicating the specific tributary progression between the main stem stream and the tributary stream.
(2) Cross-Referencing the Index Number. The inclusion of the index number in the schedule is to provide a cross reference between the classification schedules and an alphabetic list of streams.
(f) Classification Date. The classification date indicates the date on which enforcement of the provisions of Section 143-215.1 of the General Statutes of North Carolina became effective with reference to the classification assigned to the various streams in North Carolina.
(g) Reference. Copies of the schedules of classifications adopted and assigned to the waters of the various river basins may be obtained at no charge by writing to:

Director
Division of Environmental Management
Department of Environment, Health, and Natural Resources
Post Office Box 29535
Raleigh, North Carolina 27626-0535

(h) Places where the schedules may be inspected:

Division of State Library
Archives - State Library Building
109 E. Jones Street
Raleigh, North Carolina.

(i) Unnamed Streams.
(1) Any stream which is not named in the schedule of stream classifications carries the same classification as that assigned to the stream segment to which it is tributary except:
(A) unnamed streams specifically described in the schedule of classifications; or
(B) unnamed freshwaters tributary to tidal saltwaters will be classified "C"; or
(C) after November 1, 1986, any newly created areas of tidal saltwater which are connected to Class SA waters by approved dredging projects will be classified "SC" unless case-by-case reclassification proceedings are conducted.
(2) The following river basins have different policies for unnamed streams entering other states or for specific areas of the basin:

Hiwassee River Basin (Rule .0302); Little Tennessee River Basin and Savannah River Drainage Area (Rule .0303); French Broad River Basin (Rule .0304); Watauga River Basin (Rule .0305); Broad River Basin (Rule .0306); New River Basin (Rule .0307); Catawba River Basin (Rule .0308); Yadkin-Pee Dee River Basin (Rule .0309); Lumber River Basin (Rule .0310); Roanoke River Basin (Rule .0313); Tar-Pamlico River Basin (Rule .0316); Pasquotank River Basin (Rule .0317).

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1995; August 3, 1992; August 1, 1990; October 1, 1989.

15A NCAC 02B .0302 HIWASSEE RIVER BASIN

(a) Places where the schedule may be inspected:
- (1) Clerk of Court:
  Cherokee County
  Clay County;
- (2) North Carolina Department of Environment, Health, and Natural Resources
  Asheville Regional Office Interchange Building
  59 Woodfin Place
  Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering Georgia or Tennessee shall be classified "C Tr."

(c) The Hiwassee River Basin Schedule of Classifications and Water Quality Standards was amended effective:
- (1) August 9, 1981;
- (2) February 1, 1986;
- (3) March 1, 1989;
- (4) August 1, 1990;
- (5) August 3, 1992;
- (6) July 1, 1995.

(d) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective March 1, 1989 as follows:
- (1) Fires Creek (Index No. 1-27) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.
- (2) Gipp Creek (Index No. 1-52-23) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters(with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the Hiwassee River Basin was amended effective July 1, 1995 with the reclassification of the Hiwassee River [Index Nos. 1-(42.7) and 1-(48.5)] from McComb Branch to the Town of Murphy water supply intake including tributaries from Classes WS-IV and WS-IV CA to Classes WS-IV, WS-IV CA, WS-V and C.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. July 1, 1995; August 3, 1992; August 1, 1990; March 1, 1989.

15A NCAC 02B .0303 LITTLE TENN RIVER BASIN AND SAVANNAH RIVER DRAINAGE AREA

(a) The schedule may be inspected at the following places:
- (1) Clerk of Court:
  Clay County

Graham County
Jackson County
Macon County
Swain County
Transylvania County

(2) North Carolina Department of Environment and Natural Resources
Asheville Regional Office
Interchange Building
59 Woodfin Place
Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering Georgia or Tennessee shall be classified "C Tr." Such streams in the Savannah River drainage area entering South Carolina shall be classified "B Tr."

(c) The Little Tennessee River Basin and Savannah River Drainage Area Schedule of Classifications and Water Quality Standards was amended effective:

(1) February 16, 1977;
(2) March 1, 1977;
(3) July 13, 1980;
(4) February 1, 1986;
(5) October 1, 1987;
(6) March 1, 1989;
(7) January 1, 1990;
(8) July 1, 1990;
(9) August 1, 1990;
(10) March 1, 1991;
(11) August 3, 1992;
(12) February 1, 1993;
(13) August 1,1994;
(14) September 1, 1996;
(15) August 1, 1998;
(16) August 1, 2000.

(d) The Schedule of Classifications of Water Quality Standards for the Little Tennessee Basin and Savannah River Drainage Area was amended effective March 1, 1989 as follows:

(1) Nantahala River (Index No. 2-57) from source to the backwaters of Nantahala Lake and all tributary waters were reclassified from Class B-trout, Class C-trout and Class C to Class B-trout ORW, Class C-trout ORW and Class C ORW.

(2) Chattooga River (Index No. 3) including Scotsman Creek, Overflow Creek, Big Creek, Talley Mill Creek and all tributary waters were reclassified from Class B-trout, Class C-trout and Class C to Class B-trout ORW, Class C-trout ORW and Class C ORW and Clear Creek and all tributary waters were reclassified from Class C-trout and Class C to Class B-trout and Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective January 1, 1990 as follows:

(1) North Fork Coweeta Creek (Index No. 2-10-4) and Falls Branch (Index No. 2-10-4-1) were reclassified from Class C to Class B.

(2) Burningtown Creek (Index No. 2-38) was reclassified from C-trout to B-trout.

(f) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective July 1, 1990 by the reclassification of Alarka Creek (Index No. 2-69) from source to Upper Long Creek (Index No. 2-69-2) including all tributaries from Classes C and C Tr to Classes C HQW and C Tr HQW.

(g) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective March 1, 1991 as follows:

(1) Cartoogechaye Creek [Index Nos. 2-19-(1) and 2-19-(16)] from Gibson Cove Branch to bridge at U.S. Hwy. 23 and 441 and from the bridge at U.S. Hwy. 23 and 441 to the Little Tennessee River was reclassified from Classes WS-III Tr and C Tr to Classes WS-III and B Tr and B Tr respectively.

(2) Coweeta Creek (Index Nos. 2-10) from its source to the Little Tennessee River including all tributaries except Dryman Fork (Index No. 2-10-3) and North Fork Coweeta Creek (Index No. 2-10-4) was reclassified from Classes C and C Tr to Classes B and B Tr.

(h) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(i) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area has been amended effective February 1, 1993 as follows:

(1) Bearwallow Creek from its source to 2.3 miles upstream of the Toxaway River [Index No. 4-7-(1)] was revised to indicate the application of an additional management strategy (referencing 15A NCAC 2B .0201(d) to protect downstream waters; and

(2) the Tuckaseegee River from its source to Tennessee Creek [Index No. 2-79-(0.5)] including all tributaries was reclassified from Classes WS-III&B Tr HQW, WS-III HQW and WS-III to Classes WS-III Tr ORW and WS-III ORW.

(j) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective August 1, 1994 with the reclassification of Deep Creek [Index Nos. 2-79-63-(1) and 2-79-63-(16)] from its source to the Great Smokey Mountains National Park Boundary including tributaries from Classes C Tr, B Tr and C Tr HQW to Classes WS-II Tr and WS-II Tr CA.

(k) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective September 1, 1996 as follows:

(1) Deep Creek from the Great Smoky Mountains National Park Boundary to the Tuckasegee River [Index no. 2-79-63-(21)] was reclassified from Class C Tr to Class B Tr; and

(2) the Tuckasegee River from the West Fork Tuckasegee River to Savannah Creek and from Macks Town Branch to Cochran Branch [Index Nos. 2-79-(24), 2-79(29.5) and 2-79-(38)] was reclassified from Classes WS-III Tr, WS-III Tr CA and C to Classes WS-III&B Tr, WS-III&B Tr CA and B.

(l) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended effective August 1, 1998 with the reclassifications of Thorpe Reservoir (Lake Glenville), Hurricane Creek, and Laurel Branch [Index Nos. 2-79-23-(1), 2 -79-23-2, and 2-79-23-2-1 respectively] from classes WS-III&B, WS-III Tr and WS-III to classes WS-III&B HQW, WS-III Tr HQW, and WS-III HQW.

(m) The Schedule of Classifications and Water Quality Standards for the Little Tennessee River Basin and Savannah River Drainage Area was amended August 1, 2000 with the reclassification of Wesser Creek [Index No. 2-79-52-5-1] from its source to Williams Branch from Class C to Class C Tr.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2000; August 1, 1998; September 1, 1996; August 1, 1994; February 1, 1993; August 3, 1992; March 1, 1991.

15A NCAC 02B .0304 FRENCH BROAD RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Avery County
Buncombe County
Haywood County
Henderson County
Madison County
Mitchell County
Transylvania County
Yancey County

(2) North Carolina Department of Environment and Natural Resources
Asheville Regional Office
Interchange Building
59 Woodfin Place

Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering Tennessee will be classified "B."

(c) The French Broad River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) September 22, 1976;
(2) March 1, 1977;
(3) August 12, 1979;
(4) April 1, 1983;
(5) August 1, 1984;
(6) August 1, 1985;
(7) February 1, 1986;
(8) May 1, 1987;
(9) March 1, 1989;
(10) October 1, 1989;
(11) January 1, 1990;
(12) August 1, 1990;
(13) August 3, 1992;
(14) October 1, 1993;
(15) July 1, 1995;
(16) November 1, 1995;
(17) January 1, 1996;
(18) April 1, 1996;
(19) August 1, 1998;
(20) August 1, 2000.

(d) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective March 1, 1989 as follows:

(1) Cataloochee Creek (Index No. 5-41) and all tributary waters were reclassified from Class C-trout and Class C to Class C-trout ORW and Class C ORW.
(2) South Fork Mills River (Index No. 6-54-3) down to Queen Creek and all tributaries were reclassified from Class WS-I and Class WS-III-trout to Class WS-I ORW and Class WS-III-trout ORW.

(e) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective October 1, 1989 as follows: Cane River (Index No. 7-3) from source to Bowlens Creek and all tributaries were reclassified from Class C trout and Class C to Class WS-III trout and Class WS-III.

(f) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective January 1, 1990 as follows: North Toe River (Index No. 7-2) from source to Cathis Creek (Christ Branch) and all tributaries were reclassified from Class C trout and Class C to Class WS-III trout and Class WS-III.

(g) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective October 1, 1993 as follows: Reasonover Creek [Index No. 6-38-14-(1)] from source to Reasonover Lake Dam and all tributaries were reclassified from Class B Trout to Class WS-V and B Trout, and Reasonover Creek [Index No. 6-38-14-(4)] from Reasonover Lake Dam to Lake Julia Dam and all tributaries were reclassified from Class C Trout to Class WS-V Trout.

(i) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective July 1, 1995 with the reclassification of Cane Creek [Index Nos. 6-57-(1) and 6-57-(9)] from its source to the French Broad River from Classes WS-IV and WS-IV Tr to Classes WS-V, WS-V Tr and WS-IV.

(j) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective November 1, 1995 as follows: North Toe River [Index Numbers 7-2-(0.5) and 7-2-(37.5)] from source to a point 0.2 miles downstream of Banjo Branch, including tributaries, has been reclassified from Class WS-III, WS-III Trout and WS-III Trout CA (critical area) to Class WS-IV Trout, WS-IV, WS-IV Trout CA, and C Trout.

(k) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended effective January 1, 1996 as follows: Stokely Hollow [Index Numbers 6-121.5-(1) and 6-121.5-(2)] from source to mouth of French Broad River has been reclassified from Class WS-II and Class WS-II CA to Class C.
(l) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended April 1, 1996 with the reclassification of the French Broad River [Index No. 6-(1)] from a point 0.5 miles downstream of Little River to Mill Pond Creek to Class WS-IV; French Broad River [Index No. 6-(51.5)] from a point 0.6 miles upstream of Mills River to Mills River to Class WS-IV CA (Critical Area), from Mills River to a point 0.1 miles upstream of Boring Mill Branch to Class C; and the Mills River [Index No. 6-54-(5)] was reclassified from City of Hendersonville water supply intake to a point 0.7 miles upstream of mouth of Mills River to Class WS-III, and from a point 0.7 miles upstream of mouth of Mills River to French Broad River to Class WS- III CA (Critical Area).
(m) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 1998 with the revision to the primary classification for portions of the French Broad River [Index No. 6-(38.5)] and the North Toe River 7-2-(10.5) from Class IV to Class C.
(n) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 1998 with the reclassification of Clear Creek [Index No. 6-55-(1)] from its source to Lewis Creek from Class C Tr to Class B Tr.
(o) The Schedule of Classifications and Water Quality Standards for the French Broad River Basin was amended August 1, 2000 with the reclassification of Rough Creek [Index No. 5-8-4-(1)], including all tributaries, from its source to the Canton Reservoir from Class WS-I to Class WS-I Tr ORW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2000; August 1, 1998; April 1, 1996; January 1, 1996; November 1, 1995; July 1, 1995.

15A NCAC 02B .0305 WATAUGA RIVER BASIN

(a) The schedule may be inspected at the following places:
(1) Clerk of Court:
Avery County
Watauga County
(2) North Carolina Department of Environment and Natural Resources
Asheville Regional Office
Interchange Building
59 Woodfin Place
Asheville, North Carolina.
(b) Unnamed Streams. Such streams entering the State of Tennessee are classified "C."
(c) The Watauga River Basin Schedule of Classifications and Water Quality Standards was amended effective:
(1) August 12, 1979;
(2) February 1, 1986;
(3) October 1, 1987;
(4) August 1, 1989;
(5) August 1, 1990;
(6) December 1, 1990;
(7) April 1, 1992;
(8) August 3, 1992;
(9) February 1, 1993;
(10) April 1, 1994;
(11) August 1, 1998.
(d) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective July 1, 1989 as follows:
(1) Dutch Creek (Index No. 8-11) was reclassified from Class C-trout to Class B-trout.
(2) Pond Creek (Index No. 8-20-2) from water supply intake (located just above Tamarack Road) to Beech Creek and all tributary waters were reclassified from Class WS-III to C.
(e) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective December 1, 1990 with the reclassification of the Watauga River from the US Highway 321 bridge to the North Carolina/Tennessee state line from Class C to Class B.

(f) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective April 1, 1992 with the reclassification of Pond Creek from Classes WS-III and C to Classes WS-III Trout and C Trout.
(g) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.
(h) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective February 1, 1993 with the reclassification of Boone Fork (Index No. 8-7) and all tributary waters from Classes C Tr HQW and C HQW to Classes C Tr ORW and C ORW.
(i) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective April 1, 1994 with the reclassification of the Elk River from Peavine Branch to the North Carolina/Tennessee state line [Index No. 8-22-(3)] from Class C Tr to Class B Tr.
(j) The Schedule of Classifications and Water Quality Standards for the Watauga River Basin has been amended effective August 1, 1998 with the reclassification of East Fork Pond Creek from its source to the backwater of Santis Lake, [Index No. 8-20-2-1.5] from Class WS-II Tr to Class WS-III Tr; the reclassification of West Fork Pond Creek (Santis Lake) [Index No. 8-20-2-1-(2)] from the backwaters of Santis Lake to Pond Creek from WS-II Tr CA to WS-III Tr CA; and the reclassification of the connecting stream of Lake Coffey [Index No. 8-20-2-2] from the dam at Lake Coffey to Pond Creek from WS-II Tr CA to C Tr.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1998; April 1, 1994; February 1, 1993; August 3, 1992; April 1, 1992.

15A NCAC 02B .0306 BROAD RIVER BASIN

(a) The schedule may be inspected at the following places:
- (1) Clerk of Court:
  Buncombe County
  Cleveland County
  Gaston County
  Henderson County
  Lincoln County
  McDowell County
  Polk County
  Rutherford County
- (2) North Carolina Department of Environment and Natural Resources:
  - (A) Mooresville Regional Office
    919 North Main Street
    Mooresville, North Carolina
  - (B) Asheville Regional Office
    Interchange Building
    59 Woodfin Place
    Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering South Carolina are classified "C."
(c) The Broad River Basin Schedule of Classifications and Water Quality Standards was amended effective:
- (1) March 1, 1977;
- (2) February 12, 1979;
- (3) August 12, 1979;
- (4) April 1, 1983;
- (5) February 1, 1986;
- (6) August 3, 1992;
- (7) September 1, 1994;
- (8) August 1, 1998;
- (9) August 1, 2000;

(10) April 1, 2001.

(d) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(e) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective September 1, 1994 with the reclassification of the Second Broad River [Index No. 9-41-(0.5)] from its source to Roberson Creek including associated tributaries was reclassified from Class WS-V to Classes WS-V, WS-IV and WS-IV CA.

(f) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Broad River [Index No. 9-(23.5)] from Class WS-IV to Class C and Second Broad River [Index Nos. 9-41-(10.5) and 9-41-(14.5)] and First Broad River [Index No. 9-50-(11)] from Class WS-IV to Class WS-V.

(g) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended August 1, 2000 with the reclassification of the Green River [Index No. 9-29-(1)], including all tributaries, from its source to its mouth in Lake Summit at elevation 2011 from Class C Tr to Class B Tr.

(h) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective August 1, 2000 with the reclassification of Lake Montonia [Index No. 9-54-1-(1)], and all tributaries, from Class B to Class B HQW.

(i) The Schedule of Classifications and Water Quality Standards for the Broad River Basin was amended effective April 1, 2001 with the reclassification of the Green River [Index No. 9-29-(1)], including all tributaries, from its source to the downstream side of the mouth of Rock Creek from Class B Tr to Class B Tr HQW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. April 1, 2001; August 1, 2000; August 1, 1998; September 1, 1994; August 3, 1992; February 1, 1986; January 1, 1985.

15A NCAC 02B .0307 NEW RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Alleghany County
Ashe County
Watauga County

(2) North Carolina Department of Environment and Natural Resources:

(A) Asheville Regional Office
Interchange Building
59 Woodfin Place
Asheville, North Carolina

(B) Winston-Salem Regional Office
8025 North Point Boulevard, Suite 100
Winston-Salem, North Carolina.

(b) Unnamed Streams. Such streams entering the State of Tennessee are classified "C."

(c) The New River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) August 10, 1980;
(2) April 1, 1983;
(3) February 1, 1986;
(4) August 1, 1989;
(5) August 1, 1990;
(6) August 3, 1992;
(7) February 1, 1993;
(8) August 1, 1998.

(d) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective July 1, 1989 as follows:

(1) South Fork New River [Index No. 10-1-(30)] from Dog Creek to New River and all tributary waters were reclassified from Class C-trout and Class C to Class B-trout and B.

(e) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the New River Basin has been amended effective February 1, 1993 as follows:

(1) the South Fork New River (Index No. 10-1-33.5) from Dog Creek to the New River was reclassified from Class B HQW to Class B ORW;

(2) the New River (Index No. 10) from the confluence of the North And South Fork New Rivers to the last point at which it crosses the NC/VA State line was reclassified from Class C HQW to Class C ORW; and

(3) Old Field Creek (Index No. 10-1-22) from Call Creek to the South Fork New River, and Call Creek (Index No. 10-1-22-1) from its source to Old Field Creek were reclassified from Class WS-IV Trout to Class WS-IV Trout ORW.

(g) The Schedule of Classifications and Water Quality Standards for the New River Basin was amended effective August 1, 1998 with the revision to the primary classification for a portion of the South Fork New River [Index No. 10-1 (20.5)] from Class WS-IV to Class WS-V.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1998; February 1, 1993; August 3, 1992; August 1, 1990; August 1, 1989.

15A NCAC 02B .0308 CATAWBA RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Alexander County
Avery County
Burke County
Caldwell County
Catawba County
Gaston County
Iredell County
Lincoln County
McDowell County
Mecklenburg County
Union County
Watauga County

(2) North Carolina Department of Environment and Natural Resources:

(A) Mooresville Regional Office
919 North Main Street
Mooresville, North Carolina

(B) Asheville Regional Office
Interchange Building
59 Woodfin Place
Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering South Carolina are classified "C."

(c) The Catawba River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) March 1, 1977;

(2) August 12, 1979;

(3) April 1, 1982;

(4) January 1, 1985;

(5) August 1, 1985;
(6) February 1, 1986;
(7) March 1, 1989;
(8) May 1, 1989;
(9) March 1, 1990;
(10) August 1, 1990;
(11) August 3, 1992;
(12) April 1, 1994;
(13) July 1, 1995;
(14) September 1, 1996;
(15) August 1, 1998;
(16) April 1, 1999;
(17) August 1, 2000.

(d) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective March 1, 1989 as follows:

(1) Wilson Creek (Index No. 11-38-34) and all tributary waters were reclassified from Class B-trout and Class C-trout to Class B-trout ORW and Class C-trout ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective May 1, 1989 as follows:

(1) Henry Fork [Index Nos. 11-129-1-(1) and 11-129-1-(2)] from source to Laurel Creek, including all tributaries, were reclassified from Class WS-I, C and C trout to Class WS-I ORW, C ORW and C trout ORW, except Ivy Creek and Rock Creek which will remain Class C trout and Class C.
(2) Jacob Fork [Index Nos. 11-129-2-(1) and 11-129-2-(4)] from source to Camp Creek, including all tributaries, were reclassified from Class WS-III trout and WS-III to WS-III trout ORW and WS-III ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective March 1, 1990 as follows:

(1) Upper Creek [Index No. 11-35-2-(1)] from source to Timbered Branch including all tributaries except Timbered Branch (Index No. 11-35-2-9) was reclassified from Class C Trout to Class C Trout ORW.
(2) Steels Creek [Index No. 11-35-2-12(1)] from source to Little Fork and all tributaries was reclassified from Class C Trout to Class C Trout ORW.

(g) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective April 1, 1994 as follows:

(1) Friday Lake (Index No. 11-125.5) from its source to Little Paw Creek was reclassified from Class C to Class B.
(2) The Linville River [Index No. 12-29-(1)] from Grandmother Creek to Linville Falls was reclassified from Class C Tr to Class B Tr.

(i) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective July 1, 1995 with the reclassification of Clark Creek from a point 0.6 mile downstream of Catawba County SR 2014 to 0.4 mile upstream of Larkard Creek [Index No. 11-129-5-(4.5)], and Howards Creek from its source to 0.7 mile upstream of Lincoln County State Road 1200 [Index No. 11-129-4], including associated tributaries from Class WS-IV to Classes C and WS-IV.

(j) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective September 1, 1996 as follows:

(1) North Fork Catawba River [Index No. 11-24-(1)] from Laurel Branch to Armstrong Creek from Class C Tr to Class B Tr; and
(2) Catawba River (Lake Hickory) from Rhodhiss dam to highway 321 [Index No. 11-(51)] from Class WS-IV CA to Class WS-IV&B CA.

(k) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the South Fork Catawba River [Index No. 11-129-(0.5)] and Hoyle Creek [Index No. 11-129-15-(1)] from Class WS-IV to Class WS-V.
(l) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective August 1, 1998 as follows:

(1) Mill Creek [Index No. 11-7] from its source to Swannanoa Creek, including all tributaries, from Class C Tr to Class C Tr HQW; and
(2) Toms Creek [Index Nos. 11-21-(1) and 11-21-(2)] from its source to Harris Creek, including all tributaries, from Class C Tr to Class C Tr HQW and from Harris Creek to McDowell County SR 1434, including all tributaries, from Class C to Class C HQW.

(m) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective April 1, 1999 with the reclassification of a portion of the Catawba River [Index Nos. 11-(27.5) and 11-(31) from Class WS-IV & B and WS-IV to Class WS-V & B and WS-V.
(n) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended effective April 1, 1999 with the reclassification of Armstrong Creek [Index Nos. 11-24-14-(1), 11-24-14-(13.5) and 11-24-14-(14)], and all tributaries from Classes WS-II Tr, WS-II, WS-II CA and C Tr to Classes C Tr HQW and C HQW.
(o) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended April 1, 1999 as follows:

(1) Lookout Shoals Lake from Oxford Dam to Island Creek [Index No. 11-(67)] from Class WS-V to Class WS-IV CA, from Island Creek to Elk Shoal Creek [Index No. 11-(70.5)] from Class WS-IV to Class WS-IV CA and from Elk Shoal Creek to a point one half mile upstream of Lookout Shoals Dam [Index No. 11-(72)] from Class WS-IV&B to Class WS-IV&B CA; and
(2) The primary classifications of tributary streams that are within five miles and draining to the normal pool elevation of Lookout Shoals Lake (Protected Area) have been revised to Class WS-IV; and
(3) The primary classifications of tributary streams that are within one half mile and draining to the normal pool elevation of Lookout Shoals Lake (Critical Area) have been revised to Class WS-IV CA.

(p) The Schedule of Classifications and Water Quality Standards for the Catawba River Basin was amended August 1, 2000 with the reclassification of Little Grassy Creek (Index No. 11-29-2), including all tributaries, from its source to the Linville River from Class C Tr to Class C Tr ORW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2000; April 1, 1999; August 1, 1998; September 1, 1996; July 1, 1995; April 1, 1994; August 3, 1992; August 1, 1990.

15A NCAC 02B .0309 YADKIN-PEE DEE RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Alexander County
Anson County
Cabarrus County
Caldwell County
Davidson County
Davie County
Forsyth County
Guilford County
Iredell County
Mecklenburg County
Montgomery County
Randolph County
Richmond County
Rowan County
Stanly County
Stokes County
Surry County

Union County
Watauga County
Wilkes County
Yadkin County

(2) North Carolina Department of Environment and Natural Resources:

(A) Mooresville Regional Office
919 North Main Street
Mooresville, North Carolina

(B) Winston-Salem Regional Office
8025 North Point Boulevard, Suite 100
Winston-Salem, North Carolina

(C) Fayetteville Regional Office
Wachovia Building
Suite 714
Fayetteville, North Carolina

(D) Asheville Regional Office
Interchange Building
59 Woodfin Place
Asheville, North Carolina.

(b) Unnamed Streams. Such streams entering Virginia are classified "C," and such streams entering South Carolina are classified "C".

(c) The Yadkin-Pee Dee River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) February 12, 1979;
(2) March 1, 1983;
(3) August 1, 1985;
(4) February 1, 1986;
(5) October 1, 1988;
(6) March 1, 1989;
(7) January 1, 1990;
(8) August 1, 1990;
(9) January 1, 1992;
(10) April 1, 1992;
(11) August 3, 1992;
(12) December 1, 1992;
(13) April 1, 1993;
(14) September 1, 1994;
(15) August 1, 1995;
(16) August 1, 1998;
(17) April 1, 1999.

(d) The Schedule of Classifications and Water Quality Standard for the Yadkin-Pee Dee River Basin has been amended effective October 1, 1988 as follows:

(1) Mitchell River [Index No. 12-62-(1)] from source to mouth of Christian Creek (North Fork Mitchell River) including all tributaries has been reclassified from Class B Tr to Class B Tr ORW.

(2) Mitchell River [Index No. 12-62-(7)] from mouth of Christian Creek (North Fork Mitchell River) to Surry County SR 1315 including all tributaries has been classified from Class C Tr to C Tr ORW, except Christian Creek and Robertson Creek which will be reclassified from Class B Tr to Class B Tr ORW.

(3) Mitchell River [Index No. 12-62-(12)] from Surry County SR 1315 to mouth of South Fork Mitchell River including all tributaries from Class C to Class C ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective March 1, 1989 as follows:

(1) Elk Creek [Index Nos. 12-24-(1) and 12-24-(10)] and all tributary waters were reclassified from Class B-trout, Class C-trout and Class B to Class B-trout ORW, Class C-trout ORW and Class B ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective January 1, 1990 as follows: Barnes Creek (Index No. 13-2-18) was reclassified from Class C to Class C ORW.

(g) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective January 1, 1992 as follows:

(1) Little River [Index Nos. 13-25-(10) and 13-25-(19)] from Suggs Creek to Densons Creek has been reclassified from Classes WS-III and C to Classes WS-III HQW and C HQW.

(2) Densons Creek [Index No. 13-25-20-(1)] from its source to Troy's Water Supply Intake including all tributaries has been reclassified from Class WS-III to Class WS-III HQW.

(3) Bridgers Creek (Index No. 13-25-24) from its source to the Little River has been reclassified from Class C to Class C HQW.

(h) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective April 1, 1992 with the reclassification of the North Prong South Fork Mitchell River from Class C to Class C Trout.

(i) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(j) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective December 1, 1992 as follows:

(1) Pike Creek (Index No. 12-46-1-2) was reclassified from Class C Tr to Class C Tr HQW;

(2) Basin Creek (Index No. 12-46-2-2) was reclassified from Class C Tr to Class C Tr ORW;

(3) Bullhead Creek (Index No. 12-46-4-2) was reclassified from Class C Tr to Class C Tr ORW;

(4) Rich Mountain Creek (Index No. 12-46-4-2-2) was reclassified from Class Tr to Class C Tr ORW; and

(5) Widows Creek (Index No. 12-46-4-4) was reclassified from Class C Tr HQW to Class C Tr ORW.

(k) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective September 1, 1994 as follows:

(1) Lanes Creek [Index Nos. 13-17-40-(1) and 13-17-40-(10.5)] from its source to the Marshville water supply dam including tributaries was reclassified from Classes WS-II and WS-II CA to Class WS-V.

(2) The South Yadkin River [Index Nos. 12-108-(9.7) and 12-108-(15.5)] from Iredell County SR 1892 to a point 0.7 mile upstream of the mouth of Hunting Creek including associated tributaries was reclassified from Classes WS-V, C and WS-IV to Classes WS-V, WS-IV, C and WS-IV CA.

(3) The Yadkin River [Index Nos. 12-(53) and 12-(71)] from a point 0.3 mile upstream of the mouth of Elkin Creek (River) to the Town of King water supply intake including associated tributaries was reclassified from Classes C and WS-IV to Classes WS-IV and WS-IV CA.

(4) The Yadkin River [Index Nos. 12-(80.5), 12-(81.5) and 12-(84.5)] from the Town of King water supply intake to the Davie County water supply intake reclassified from Classes C, B, WS-IV and WS-V to Classes WS-IV, WS-IV&B and WS-IV CA.

(l) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin has been amended effective August 1, 1995 as follows: Bear Creek [Index Nos. 12-108-18-(3), 12-108-18-(3.3)], Little Bear Creek (Index No. 12-108-18-2), and Blue Branch (Index No. 12-108-18-2-1) were reclassified from WS-II and WS-II CA (Critical Area) to C and WS-IV.

(m) The Schedule of Classifications and Water Quality Standards for the Yadkin-Pee Dee River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Yadkin River [Index No. 12-(45)] from Class WS-IV to WS-V, Yadkin River [Index No. 12-(67.5)] from Class WS-IV to Class C, Yadkin River [Index Nos. 12-(93.5) and 12-(98.5)] from Class WS-IV to Class WS-V, South Yadkin River [Index No. 12-108-(12.5)] from Class WS-IV to Class WS-V, and South Yadkin River [Index Nos. 12-108-(19.5) and 12-108-(22)] from Class WS-IV to Class C.

(n) The Schedule of Classifications and Water Quality Standards for the Yadkin Pee-Dee River Basin was amended effective April 1, 1999 with the reclassification of a portion of the Yadkin River [Index No. 12-(80.5)] from WS-IV CA to WS-IV. A portion of the Yadkin River 0.5 mile upstream of Bashavia Creek was reclassified from WS-IV to WS-IV CA. Bashavia Creek [Index Nos. 12-81-(0.5) and 12-81-(2)] was reclassified from WS-IV and WS-IV CA to Class C. Tributaries to Bashavia Creek were also reclassified to Class C. Portions of the Yadkin River [Index Nos. 12-(25.5) and 12-(27)] were reclassified from WS-IV to Class C and from WS-IV & B to Class B. Tributaries were reclassed from Class WS-IV to Class C. Supplemental classifications were not changed.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;

Amended Eff. April 1, 1999; August 1, 1998; August 1, 1995; September 1, 1994; April 1, 1993 December 1, 1992.

15A NCAC 02B .0310 LUMBER RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Bladen County
Brunswick County
Columbus County
Cumberland County
Hoke County
Montgomery County
Moore County
Richmond County
Robeson County
Scotland County

(2) North Carolina Department of Environment and Natural Resources:

(A) Fayetteville Regional Office
Wachovia Building
Suite 714
Fayetteville, North Carolina

(B) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina.

(b) Unnamed Streams. Such streams entering South Carolina are classified "C Sw".

(c) The Lumber River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) December 13, 1979;
(3) September 14, 1980;
(4) April 12, 1981;
(5) April 1, 1982;
(6) February 1, 1986;
(7) July 1, 1990;
(8) August 1, 1990;
(9) August 3, 1992;
(10) September 1, 1996;
(11) August 1, 2000.

(d) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective July 1, 1990 by the reclassification of Naked Creek (Index No. 14-2-6) from source to Drowning Creek including all tributaries from Class WS-III to Class WS-III ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective September 1, 1996 by the reclassification of the Lumber River from 2.0 miles upstream of highway 401 to a point 0.5 mile upstream of Powell Branch [Index Nos. 14-(3), 14-(4), 14-(4.5), 14-(7) and 14-(10.3)] from Classes WS-IV Sw HQW, WS-IV Sw HQW CA and C Sw HQW to Classes WS-IV&B Sw HQW, WS-IV&B Sw HQW CA and B Sw HQW.

(g) The Schedule of Classifications and Water Quality Standards for the Lumber River Basin was amended effective August 1, 2000 with the reclassification of Lake Waccamaw [Index No. 15-2] from Class B Sw to Class B Sw ORW.

History Note: Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);

Eff. February 1, 1976;
Amended Eff. August 1, 2000; September 1, 1996; August 3, 1992; August 1, 1990; July 1, 1990; February 1, 1986.

15A NCAC 02B .0311 CAPE FEAR RIVER BASIN

(a) Places where the schedules may be inspected:

(1) Clerk of Court:
Alamance County
Bladen County
Brunswick County
Caswell County
Chatham County
Columbus County
Cumberland County
Duplin County
Durham County
Forsyth County
Guilford County
Harnett County
Hoke County
Lee County
Montgomery County
Moore County
New Hanover County
Onslow County
Orange County
Pender County
Randolph County
Rockingham County
Sampson County
Wake County
Wayne County

(2) North Carolina Department of Environment and Natural Resources:

(A) Winston-Salem Regional Office
8025 North Point Boulevard, Suite 100
Winston-Salem, North Carolina

(B) Fayetteville Regional Office
Wachovia Building
Suite 714
Fayetteville, North Carolina

(C) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina

(D) Washington Regional Office
1424 Carolina Avenue
Washington, North Carolina

(E) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina

(b) The Cape Fear River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) December 13, 1979;
(3) December 14, 1980;
(4) August 9, 1981;
(5) April 1, 1982;

(6) December 1, 1983;
(7) January 1, 1985;
(8) August 1, 1985;
(9) December 1, 1985;
(10) February 1, 1986;
(11) July 1, 1987;
(12) October 1, 1987;
(13) March 1, 1988;
(14) June 1, 1988;
(15) July 1, 1988;
(16) January 1, 1990;
(17) August 1, 1990;
(18) August 3, 1992;
(19) September 1, 1994;
(20) August 1, 1998;
(21) April 1, 1999.

(c) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective June 1, 1988 as follows:

(1) Cane Creek [Index No. 16-21-(1)] from source to a point 0.5 mile north of N.C. Hwy. 54 (Cane Reservoir Dam) including the Cane Creek Reservoir and all tributaries has been reclassified from Class WS-III to WS-I.
(2) Morgan Creek [Index No. 16-41-1-(1)] to the University Lake dam including University Lake and all tributaries has been reclassified from Class WS-III to WS-I.

(d) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective July 1, 1988 by the reclassification of Crane Creek (Crains Creek) [Index No. 18-23-16-(1)] from source to mouth of Beaver Creek including all tributaries from C to WS-III.

(e) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective January 1, 1990 as follows:

(1) Intracoastal Waterway (Index No. 18-87) from southern edge of White Oak River Basin to western end of Permuda Island (a line from Morris Landing to Atlantic Ocean), from the eastern mouth of Old Topsail Creek to the southwestern shore of Howe Creek and from the southwest mouth of Shinn Creek to channel marker No. 153 including all tributaries except the King Creek Restricted Area, Hardison Creek, Old Topsail Creek, Mill Creek, Futch Creek and Pages Creek were reclassified from Class SA to Class SA ORW.
(2) Topsail Sound and Middle Sound ORW Area which includes all waters between the Barrier Islands and the Intracoastal Waterway located between a line running from the western most shore of Mason Inlet to the southwestern shore of Howe Creek and a line running from the western shore of New Topsail Inlet to the eastern mouth of Old Topsail Creek was reclassified from Class SA to Class SA ORW.
(3) Masonboro Sound ORW Area which includes all waters between the Barrier Islands and the mainland from a line running from the southwest mouth of Shinn Creek at the Intracoastal Waterway to the southern shore of Masonboro Inlet and a line running from the Intracoastal Waterway Channel marker No. 153 to the southside of the Carolina Beach Inlet was reclassified from Class SA to Class SA ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin has been amended effective January 1, 1990 as follows: Big Alamance Creek [Index No. 16-19-(1)] from source to Lake Mackintosh Dam including all tributaries has been reclassified from Class WS-III NSW to Class WS-II NSW.

(g) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective June 1, 1994 as follows:

(1) The Black River from its source to the Cape Fear River [Index Nos. 18-68-(0.5), 18-68-(3.5) and 18-65-(11.5)] was reclassified from Classes C Sw and C Sw HQW to Class C Sw ORW.

(2) The South River from Big Swamp to the Black River [Index Nos. 18-68-12-(0.5) and 18-68-12(11.5)] was reclassified from Classes C Sw and C Sw HQW to Class C Sw ORW.

(3) Six Runs Creek from Quewhiffle Swamp to the Black River [Index No. 18-68-2] was reclassified from Class C Sw to Class C Sw ORW.

(i) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective September 1, 1994 with the reclassification of the Deep River [Index No. 17-(36.5)] from the Town of Gulf-Goldston water supply intake to US highway 421 including associated tributaries from Class C to Classes C, WS-IV and WS-IV CA.

(j) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective August 1, 1998 with the revision to the primary classification for portions of the Deep River [Index No. 17-(28.5)] from Class WS-IV to Class WS-V, Deep River [Index No. 17-(41.5)] from Class WS-IV to Class C, and the Cape Fear River [Index 18-(10.5)] from Class WS-IV to Class WS-V.

(k) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective April 1, 1999 with the reclassification of Buckhorn Creek (Harris Lake)[Index No. 18-7-(3)] from the backwaters of Harris Lake to the Dam at Harris Lake from Class C to Class WS-V.

(l) The Schedule of Classifications and Water Quality Standards for the Cape Fear River Basin was amended effective April 1, 1999 with the reclassification of the Deep River [Index No. 17-(4)] from the dam at Oakdale-Cotton Mills, Inc. to the dam at Randleman Reservoir (located 1.6 mile upstream of U.S. Hwy 220 Business), and including tributaries from Class C and Class B to Class WS-IV and Class WS-IV & B. Streams within the Randleman Reservoir Critical Area have been reclassified to WS-IV CA. The Critical Area for a WS-IV reservoir is defined as 0.5 mile and draining to the normal pool elevation of the reservoir. All waters within the Randleman Reservoir Water Supply Watershed are within a designated Critical Water Supply Watershed and are subject to a special management strategy specified in 15A NCAC 2B .0248.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. April 1, 1999; August 1, 1998; September 1, 1994; June 1, 1994; August 3, 1992; August 1, 1990.

15A NCAC 02B .0312 WHITE OAK RIVER BASIN

(a) Places where the schedules may be inspected:

(1) Clerk of Court:
Carteret County
Craven County
Jones County
Onslow County

(2) North Carolina Department of Environment, Health, and Natural Resources:

(A) Washington Regional Office
1424 Carolina Avenue
Washington, North Carolina

(B) Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, North Carolina

(b) The White Oak River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) December 13, 1979;
(2) June 1, 1988;
(3) January 1, 1990;
(4) August 1, 1990;
(5) August 1, 1991;
(6) June 1, 1992;
(7) December 1, 1992.

(c) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective January 1, 1990 as follows:

(1) Intracoastal Waterway (Index No. 19-39) from northeastern boundary of Cape Fear River Basin to Daybeacon No. 17 including all unnamed bays, guts, and channels, except Rogers Bay and Mill Creek and Intracoastal Waterway (Index No. 19-41) from the northeast mouth of Goose Creek to the southwest mouth of Queen Creek were reclassified from Class SA to Class SA ORW.

(2) Bear Island ORW Area, which includes all waters within an area north of Bear Island defined by a line from the western most point on Bear Island to the northeast mouth of Goose Creek on the mainland, east to the southwest mouth of Queen Creek, then south to green marker No. 49, then northeast to the northern most point on Huggins Island, then southeast along the shoreline of Huggins Island to the southeastern most point of Huggins Island, then south to the northeastern most point on Dudley Island, then southwest along the shoreline of Dudley Island to the eastern tip of Bear Island to the western mouth of Foster Creek including Cow Channel were reclassified from Class SA to Class SA ORW.

(3) Bogue Sound (including Intracoastal Waterway from White Oak River Basin to Beaufort Inlet) (Index No. 20-36) from Bogue Inlet to a line across Bogue Sound from the southwest side of mouth of Gales Creek to Rock Point and all tributaries except Hunting Island Creek, Goose Creek, and Broad Creek were reclassified from Class SA to Class SA ORW.

(4) Core Sound (Index No. 21-35-7) from northern boundary of White Oak River Basin (a line from Hall Point to Drum Inlet) to Back Sound and all tributaries except Atlantic Harbor Restricted Area, Nelson Bay, Jarrett Bay, Williston Creek, Wade Creek and Middens Creek were reclassified from Class SA to Class SA ORW.

(5) Back Sound (Index No. 21-35) from a point on Shackleford Banks at lat. 34 degrees 40' 57" and long 76 degrees 37' 30" north to the western most point of Middle Marshes and along the northwest shoreline of Middle Marshes (to include all of Middle Marshes) to Rush Point on Harkers Island and along the southern shore of Harkers Island back to Core Sound and all tributaries were reclassified from Class SA to Class SA ORW.

(d) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin was amended effective August 1, 1991 by adding the supplemental classification NSW (Nutrient Sensitive Waters) to all waters in the New River Drainage Area above a line running across the New River from Grey Point to a point of land approximately 2,200 yards downstream of the mouth of Duck Creek.

(e) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin was amended effective June 1, 1992 with the reclassification of Peletier Creek (Index No. 20-36-11) from its source to Bogue Sound from Class SA to Class SB with the requirement that no discharges be allowed.

(f) The Schedule of Classifications and Water Quality Standards for the White Oak River Basin has been amended effective December 1, 1992 with the reclassification of the Atlantic Harbor Restricted Area (Index No. 21-35-7-2) from Class SC to Class SA ORW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. December 1, 1992; June 1, 1992; August 1, 1991; August 1, 1990.

15A NCAC 02B .0313 ROANOKE RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Bertie County
Caswell County
Forsyth County
Granville County
Guilford County
Halifax County
Martin County
Northampton County
Person County
Rockingham County
Stokes County
Surry County
Vance County
Warren County
Washington County

(2) North Carolina Department of Environment and Natural Resources:

(A) Raleigh Regional Office
3800 Barrett Drive

Raleigh, North Carolina

(B) Washington Regional Office
1424 Carolina Avenue
Washington, North Carolina

(C) Winston-Salem Regional Office
8025 North Point Boulevard, Suite 100
Winston-Salem, North Carolina.

(b) Unnamed Streams. Such streams entering Virginia are classified "C." Except that all backwaters of John H. Kerr Reservoir and the North Carolina portion of streams tributary thereto not otherwise named or described shall carry the classification "B," and all backwaters of Lake Gaston and the North Carolina portion of streams tributary thereto not otherwise named or described shall carry the classification "C and B".

(c) The Roanoke River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) May 18, 1977;
(2) July 9, 1978;
(3) July 18, 1979;
(4) July 13, 1980;
(5) March 1, 1983;
(6) August 1, 1985;
(7) February 1, 1986;
(8) July 1, 1991;
(9) August 3, 1992;
(10) August 1, 1998;
(11) April 1, 1999;
(12) April 1, 2001.

(d) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective July 1, 1991 with the reclassification of Hyco Lake (Index No. 22-58) from Class C to Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(f) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective August 1, 1998 with the reclassification of Cascade Creek (Camp Creek) [Index No. 22-12] and its tributaries from its source to the backwaters at the swimming lake from Class B to Class B ORW, and reclassification of Indian Creek [index No. 22-13] and its tributaries from its source to Window Falls from Class C to Class C ORW.

(g) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective August 1, 1998 with the reclassification of Dan River and Mayo River WS-IV Protected Areas. The Protected Areas were reduced in size.

(h) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective April 1, 1999 as follows:

(1) Hyco River, including Hyco Lake below elevation 410 [Index No. 22-58-(0.5)] was reclassified from Class B to Class WS-V & B.
(2) Mayo Creek (Maho Creek) (Mayo Reservoir) [Index No. 22-58-15] was reclassified from its source to the dam of Mayo Reservoir from Class C to Class WS-V.

(i) The Schedule of Classifications and Water Quality Standards for the Roanoke River Basin was amended effective April 1, 2001 as follows:

(1) Fullers Creek from source to a point 0.8 mile upstream of Yanceyville water supply dam [Index No. 22-56-4-(1)] was reclassified from Class WS-II to Class WS-III.
(2) Fullers Creek from a point 0.8 mile upstream of Yanceyville water supply dam to Yanceyville water supply dam [Index No. 22-56-4-(2)] was reclassified from Class WS-II CA to Class WS-III CA.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;

Amended Eff. April 1, 2001; April 1, 1999; August 1, 1998; August 3, 1992; July 1, 1991; February 1, 1986; August 1, 1985.

15A NCAC 02B .0314 CHOWAN RIVER BASIN

(a) Places where the schedule may be inspected:

(1) Clerk of Court:
Bertie County
Chowan County
Gates County
Hertford County
Northampton County

(2) North Carolina Department of Environment, Health and Natural Resources:

(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina

(B) Washington Regional Office
1502 North Market Street
Washington, North Carolina

(b) Unnamed Streams. Such streams entering Virginia are classified "C."

(c) All classifications assigned to the waters of the Chowan River Basin and referenced in (a) of this Rule are additionally classified as nutrient sensitive waters (-NSW) in accordance with the provisions of Rule .0214 of this Subchapter.

(d) The Chowan River Basin Schedule of Classification and Water Quality Standards was amended effective August 1, 1985.

History Note: *Filed as an Emergency Amendment [(f)] Eff. March 10, 1979, for a period of 120 days to expire on September 7, 1979;*
Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);
Eff. February 1, 1976;
Amended Eff. November 1, 1978; March 1, 1977;
Emergency Amendment [(f)] Made Permanent Eff. September 6, 1979;
Amended Eff. August 1, 1985; January 1, 1985.

15A NCAC 02B .0315 NEUSE RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Beaufort County
Carteret County
Craven County
Durham County
Franklin County
Granville County
Greene County
Johnston County
Jones County
Lenoir County
Nash County
Orange County
Pamlico County
Person County
Pitt County
Wake County
Wayne County
Wilson County

(2) North Carolina Department of Environment and Natural Resources:

(A) Raleigh Regional Office

3800 Barrett Drive
Raleigh, North Carolina

(B) Washington Regional Office
1424 Carolina Avenue
Washington, North Carolina

(C) Wilmington Regional Office
127 Cardinal Drive
Wilmington, North Carolina.

(b) The Neuse River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) December 13, 1979;
(3) September 14, 1980;
(4) August 9, 1981;
(5) January 1, 1982;
(6) April 1, 1982;
(7) December 1, 1983;
(8) January 1, 1985;
(9) August 1, 1985;
(10) February 1, 1986;
(11) May 1, 1988;
(12) July 1, 1988;
(13) October 1, 1988;
(14) January 1, 1990;
(15) August 1, 1990;
(16) December 1, 1990;
(17) July 1, 1991;
(18) August 3, 1992;
(19) April 1, 1994;
(20) July 1, 1996;
(21) September 1, 1996;
(22) April 1, 1997;
(23) August 1, 1998.

(c) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective July 1, 1988 as follows:

(1) Smith Creek [Index No. 27-23-(1)] from source to the dam at Wake Forest Reservoir has been reclassified from Class WS-III to WS-I.
(2) Little River [Index No. 27-57-(1)] from source to the N.C. Hwy. 97 Bridge near Zebulon including all tributaries has been reclassified from Class WS-III to WS-I.
(3) An unnamed tributary to Buffalo Creek just upstream of Robertson's Pond in Wake County from source to Buffalo Creek including Leo's Pond has been reclassified from Class C to B.

(d) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective October 1, 1988 as follows:

(1) Walnut Creek (Lake Johnson, Lake Raleigh) [Index No. 27-34-(1)]. Lake Johnson and Lake Raleigh have been reclassified from Class WS-III to Class WS-III & B.
(2) Haw Creek (Camp Charles Lake) (Index No. 27-86-3-7) from the backwaters of Camp Charles Lake to dam at Camp Charles Lake has been reclassified from Class C to Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin has been amended effective January 1, 1990 as follows:

(1) Neuse-Southeast Pamlico Sound ORW Area which includes all waters within a line beginning at the southwest tip of Ocracoke Island, and extending north west along the Tar-Pamlico River Basin and Neuse River Basin boundary line to Lat. 35 degrees 06□ 30", thence in a southwest direction to Ship Point and all tributaries, were reclassified from Class SA NSW to Class SA NSW ORW.
(2) Core Sound (Index No. 27-149) from northeastern limit of White Oak River Basin (a line from Hall Point to Drum Inlet) to Pamlico Sound and all tributaries, except Thorofare, John Day Ditch were reclassified from Class SA NSW to Class SA NSW ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective December 1, 1990 with the reclassification of the following waters as described in (1) through (3) of this Paragraph.

(1) Northwest Creek from its source to the Neuse River (Index No. 27-105) from Class SC Sw NSW to Class SB Sw NSW;

(2) Upper Broad Creek [Index No. 27-106-(7)] from Pamlico County SR 1103 at Lees Landing to the Neuse River from Class SC Sw NSW to Class SB Sw NSW; and

(3) Goose Creek [Index No. 27-107-(11)] from Wood Landing to the Neuse River from Class SC Sw NSW to Class SB Sw NSW.

(g) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 1991 with the reclassification of the Bay River [Index No. 27-150-(1)] within a line running from Flea Point to the Hammock, east to a line running from Bell Point to Darby Point, including Harper Creek, Tempe Gut, Moore Creek and Newton Creek, and excluding that portion of the Bay River landward of a line running from Poorhouse Point to Darby Point from Classes SC Sw NSW and SC Sw NSW HQW to Class SA NSW.

(h) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(i) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective April 1, 1994 as follows:

(1) Lake Crabtree [Index No. 27-33-(1)] was reclassified from Class C NSW to Class B NSW.

(2) The Eno River from Orange County State Road 1561 to Durham County State Road 1003 [Index No. 27-10-(16)] was reclassified from Class WS-IV NSW to Class WS-IV&B NSW.

(3) Silver Lake (Index No. 27-43-5) was reclassified from Class WS-III NSW to Class WS-III&B NSW.

(j) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective July 1, 1996 with the reclassification of Austin Creek [Index Nos. 27-23-3-(1) and 27-23-3-(2)] from its source to Smith Creek from classes WS-III NSW and WS-III NSW CA to class C NSW.

(k) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective September 1, 1996 with the reclassification of an unnamed tributary to Hannah Creek (Tuckers Lake) [Index No. 27-52-6-0.5] from Class C NSW to Class B NSW.

(l) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective April 1, 1997 with the reclassification of the Neuse River (including tributaries) from mouth of Marks Creek to a point 1.3 miles downstream of Johnston County State Road 1908 to class WS-IV NSW and from a point 1.3 miles downstream of Johnston County State Road 1908 to the Johnston County Water Supply intake (located 1.8 miles downstream of Johnston County State Road 1908) to class WS-IV CA NSW [Index Nos. 27-(36) and 27-(38.5)].

(m) The Schedule of Classifications and Water Quality Standards for the Neuse River Basin was amended effective August 1, 1998 with the revision of the Critical Area and Protected Area boundaries surrounding the Falls Lake water supply reservoir. The revisions to these boundaries is the result of the Corps of Engineers raising the lake's normal pool elevation. The result of these revisions is the Critical and Protected Area boundaries (classifications) may extend further upstream than the current designations. The Critical Area for a WS-IV reservoir is defined as .5 miles and draining to the normal pool elevation. The Protected Area for a WS-IV reservoir is defined as 5 miles and draining to the normal pool elevation. The normal pool elevation of the Falls Lake reservoir has changed from 250.1 feet mean sea level (msl) to 251.5 feet msl.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 1998; April 1, 1997; September 1, 1996; July 1, 1996; April 1, 1994; August 3, 1992; July 1, 1991.

15A NCAC 02B .0316 TAR-PAMLICO RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Beaufort County
Dare County

Edgecombe County
Franklin County
Granville County
Halifax County
Hyde County
Martin County
Nash County
Pamlico County
Person County
Pitt County
Vance County
Warren County
Washington County
Wilson County

(2) North Carolina Department of Environment, Health, and Natural Resources:

(A) Raleigh Regional Office
3800 Barrett Drive
Raleigh, North Carolina

(B) Washington Regional Office
1424 Carolina Avenue
Washington, North Carolina.

(b) Unnamed Streams. All drainage canals not noted in the schedule are classified "C Sw," except the main drainage canals to Pamlico Sound and its bays which shall be classified "SC."

(c) The Tar-Pamlico River Basin Schedule of Classification and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) November 1, 1978;
(3) June 8, 1980;
(4) October 1, 1983;
(5) June 1, 1984;
(6) August 1, 1985;
(7) February 1, 1986;
(8) August 1, 1988;
(9) January 1, 1990;
(10) August 1, 1990;
(11) August 3, 1992;
(12) April 1, 1994;
(13) January 1, 1996;
(14) September 1, 1996.

(d) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin has been amended effective August 1, 1988 as follows:

(1) Tar River (Index No. 28-94) from a point 1.2 miles downstream of Broad Run to the upstream side of Tranters Creek from Class C to Class B.

(e) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin has been amended effective January 1, 1990 by the reclassification of Pamlico River and Pamlico Sound [Index No. 29-(27)] which includes all waters within a line beginning at Juniper Bay Point and running due south to Lat. 35° 18' 00", long. 76° 13' 20", thence due west to lat. 35° 18' 00", long 76° 20' 00", thence northwest to Shell Point and including Shell Bay, Swanquarter and Juniper Bays and their tributaries, but excluding the Blowout, Hydeland Canal, Juniper Canal and Quarter Canal were reclassified from Class SA and SC to SA ORW and SC ORW.

(f) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin has been amended effective January 1, 1990 by adding the supplemental classification NSW (Nutrient Sensitive Waters) to all waters in the basin from source to a line across Pamlico River from Roos Point to Persimmon Tree Point.

(g) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary

classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(h) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective April 1, 1994 with the reclassification of Blounts Creek from Herring Run to Blounts Bay [Index No. 29-9-1-(3)] from Class SC NSW to Class SB NSW.

(i) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective January 1, 1996 with the reclassification of Tranters Creek [Index Numbers 28-103- (4.5), 28-103- (13.5), 28-103- (14.5) and 28-103-(16.5)] from a point 1.5 miles upstream of Turkey Swamp to the City of Washington's former auxiliary water supply intake, including tributaries, from Class WS-IV Sw NSW and Class WS-IV CA Sw NSW to Class C Sw NSW.

(j) The Schedule of Classifications and Water Quality Standards for the Tar-Pamlico River Basin was amended effective September 1, 1996 with the addition of Huddles Cut (previously unnamed in the schedule) classified as SC NSW with an Index No. of 29-25.5.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. September 1, 1996; January 1, 1996; April 1, 1994; August 3, 1992; August 1, 1990.

15A NCAC 02B .0317 PASQUOTANK RIVER BASIN

(a) The schedule may be inspected at the following places:

(1) Clerk of Court:
Camden County
Chowan County
Currituck County
Dare County
Gates County
Hyde County
Pasquotank County
Perquimans County
Tyrrell County
Washington County

(2) North Carolina Department of Environment and Natural Resources;
Washington Regional Office
1424 Carolina Avenue
Washington, North Carolina.

(b) Unnamed Streams. All drainage canals not noted in the schedule are classified "C."

(c) The Pasquotank River Basin Schedule of Classifications and Water Quality Standards was amended effective:

(1) March 1, 1977;
(2) May 18, 1977;
(3) December 13, 1979;
(4) January 1, 1985;
(5) February 1, 1986;
(6) January 1, 1990;
(7) August 1, 1990;
(8) August 3, 1992;
(9) August 1, 1998;
(10) August 1, 2000.

(d) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective January 1, 1990 by the reclassification of Alligator River [Index Nos. 30-16-(1) and 30-16-(7)] from source to U.S. Hwy. 64 and all tributaries except Swindells Canal, Florida Canal, New Lake, Fairfield Canal, Carters Canal, Dunbar Canal and Intracoastal Waterway (Pungo River - Alligator River Canal) were reclassified from C Sw and SC Sw to C Sw ORW and SC Sw ORW.

(e) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 1, 1990 as follows:

(1) Croatan Sound [Index No. 30-20-(1)] from a point of land on the southern side of mouth of Peter Mashoes Creek on Dare County mainland following a line eastward to Northwest Point on Roanoke Island and then

from Northwest Point following a line west to Reeds Point on Dare County mainland was reclassified from Class SC to Class SB.

(2) Croatan Sound [Index No. 30-20-(1.5)] from Northwest Point on Roanoke Island following a line west to Reeds Point on Dare County mainland to William B. Umstead Memorial Bridge was reclassified from Class SC to Class SA.

(f) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 3, 1992 with the reclassification of all water supply waters (waters with a primary classification of WS-I, WS-II or WS-III). These waters were reclassified to WS-I, WS-II, WS-III, WS-IV or WS-V as defined in the revised water supply protection rules, (15A NCAC 2B .0100, .0200 and .0300) which became effective on August 3, 1992. In some cases, streams with primary classifications other than WS were reclassified to a WS classification due to their proximity and linkage to water supply waters. In other cases, waters were reclassified from a WS classification to an alternate appropriate primary classification after being identified as downstream of a water supply intake or identified as not being used for water supply purposes.

(g) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 1, 1998 with the revision to the primary classification for a portion of the Pasquotank River [Index No. 30-3-(1.7)] from Class WS-IV to Class WS-V.

(h) The Schedule of Classifications and Water Quality Standards for the Pasquotank River Basin was amended effective August 1, 2000 with the reclassification of Lake Phelps [Index No. 30-14-4-6-1] from Class C Sw to Class B Sw ORW.

History Note: *Authority G.S. 143-214.1; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 1, 2000; August 1, 1998; August 3, 1992; August 1, 1990; January 1, 1990; February 1, 1986.

SECTION .0400 - EFFLUENT LIMITATIONS

15A NCAC 02B .0401 PURPOSE

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Repealed Eff. December 1, 1984.

15A NCAC 02B .0402 SCOPE

Effluent limits established herein shall apply to all effluents discharged from pretreatment facilities and from outlets and point sources to the waters of the state.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976.

15A NCAC 02B .0403 DEFINITION OF TERMS

The terms used in this Section shall be as defined in G.S. 143-213 and as follows:

(1) The term "commission" means the Environmental Management Commission or its successor.

(2) The term "director" means the Director of the Division of Environmental Management, Department of Natural Resources and Community Development.

(3) The term "staff" means the division of environmental management, or its successor.

(4) The term "BPCTCA" shall mean best practicable control technology currently available. Effluent limitations determined as BPCTCA are immediately applicable and shall be complied with not later than July 1, 1977.

(5) The term "BPWTT" shall mean best practicable waste treatment technology. Effluent limitations established by this designation shall be complied with not later than July 1, 1983.

(6) The term "BCT" shall mean best conventional pollutant control technology. Effluent limitations designated as BCT will control the discharge of pollutants determined to be conventional in nature and these limitations shall be complied with not later than July 1, 1984.

(7) The term "BAT" shall mean best available technology economically achievable. Effluent limitations designated as BAT will control the discharge of pollutants determined to be nonconventional in nature and these limitations will come into effect on July 1, 1984, and shall be complied with not later than July 1, 1987.

(8) The term "BAT/BMP'S" shall mean best available technology economically achievable/best management practices. Effluent limitations designated as BAT/BMP's will control the discharge of pollutants determined to be toxic in nature. Compliance with these designated effluent limitations must be maintained not later than three years after such limitations are developed, or not later than July 1, 1984, whichever is later, but in no case later than July 1, 1987.

(9) The term "new source performance standards" shall mean the effluent limitations required of an industrial discharger determined under the guidance of 15A NCAC 2B .0407 to be a new source.

(10) The term "waste stabilization pond" (also called "lagoons" or "oxidation ponds") shall mean a large, relatively shallow basin designed for long term detention of wastewater which may or may not have received prior treatment. While in the basin, the wastewater is biologically treated to reduce biochemical oxygen demand and suspended solids. Stabilization ponds are further defined as:

(a) Photosynthetic Pond. A pond which is designed to rely on photosynthetic oxygenation (i.e., oxygen from algae) for any portion of the oxygen needed for waste treatment; This includes oxidation ponds and facultative lagoons. These ponds may have supplemental aeration by mechanical means. With regard to hydraulic flow, photosynthetic ponds are either of the:

(i) flow-through type, in which the pond discharges relatively continuously throughout the year; or

(ii) controlled-discharge type, in which the pond is designed to retain the wastewater without discharge from six months to one year, followed by controlled discharge over a short time interval (typically about one to three weeks);

(b) Aerated Pond. A pond which is not designed to rely on any photosynthetic oxygenation to provide oxygen needed for biological waste treatment; Air is supplied by mechanical means. Aerated ponds are either:

(i) complete mix, in which sufficient energy is imparted to the wastewater to prevent deposition of solids in the pond; or

(ii) partial-mix, in which only sufficient energy is used to dissolve and mix oxygen in the wastewater. Solid materials settle in the partial-mix pond and are decomposed anaerobically. There will be algae in the partial-mix aerated pond, but usually far fewer than in a photosynthetic pond.

This definition does not include polishing or holding ponds which are preceded by other biochemical or physical/chemical secondary treatment processes and designed to increase their efficiency. The pond may be single-cell or multi-cell.

(11) The term "best waste stabilization pond technology" shall mean a monthly average effluent suspended solids concentration of 90 mg/l and a weekly maximum average effluent suspended solids concentration of 135 mg/l for those waste stabilization ponds that are achieving the level of effluent quality established for biochemical oxygen demand in .0406(a)(2) of this Section.

(12) The term "minimum treatment requirements" means the effluent limitations required to comply with the designations secondary treatment as defined in 15A NCAC 2B .0406, BPWTT, BPCTCA, BCT, BAT and/or BAT/BMP's as required of a specific wastewater discharge. Minimum treatment requirements must be met even if the receiving waters affected can or are expected to be able to accept higher pollutant-load levels and still meet applicable water quality standards.

(13) The term "water quality limited segment" means a segment where it is known that water quality does not meet applicable water quality standards or is not expected to meet them even after the application of minimum treatment requirements.

(14) The term "effluent limited segment" means a segment where it is known that water quality is meeting and will continue to meet applicable water quality standards or where there is adequate demonstration that water quality will meet applicable water quality standards after the application of minimum treatment requirements.

(15) The term "settleable solids" means the volumetric measurement of solids after a specified settling time. The determination of settleable solids shall be made in the following manner: one liter of the wastewater is placed in a standard Imhoff cone and allowed to settle for 45 minutes. After 45 minutes settling, the liquid layer is

gently stirred and allowed to settle for 15 additional minutes. The volume of solids is immediately read in milliliter per liter (ml/l).

(16) The term "oxygen consuming wastes" means those wastewater discharge components recognized as being oxygen demanding in the aquatic environment. These are generally limited by BOD(5) and NH(3)-N.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 12, 1979; November 1, 1978; December 1, 1976.

15A NCAC 02B .0404 EFFLUENT LIMITATIONS IN WATER QUALITY LIMITED SEGMENTS

(a) Effluent limitations more stringent than minimum treatment requirements shall be developed by the staff and approved by the Director for all existing or proposed dischargers to water quality limited segments of the surface waters of the state. The basis of these water quality effluent limitations shall be maintenance of water quality standards.

(b) The staff shall also provide on a case-by-case basis for seasonal variation in the discharge of oxygen-consuming wastes. In order to be considered eligible for seasonal effluent limitations, a request must be submitted to the Director along with a rationale as to the need for such limitations. Permit reissuance or modification during the remaining time of an existing permit will be considered on the basis of demonstrated need. In no case shall this variation cause or be expected to cause a receiving water body to violate applicable water quality standards.

(c) For the purpose of determining seasonal effluent limitations, the year shall consist of a summer and a winter discharge period. The summer period will begin April 1 and extend through October 31. The winter period shall be that portion of the year from November 1 to March 31. The summer oxygen-consuming wasteload allocation shall be developed using the flow criteria specified in 15A NCAC 2B .0206. The winter oxygen-consuming wasteload allocation shall in no case be less stringent than two times the summer oxygen-consuming waste load limitations nor shall it be less restrictive than minimum treatment requirements.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1);*
Eff. February 1, 1976;
Amended Eff. August 12, 1979.

15A NCAC 02B .0405 EFFLUENT LIMITS: GUIDELINES FOR EFFLUENT LIMITED SEGMENTS

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1), (4);*
Eff. February 1, 1976;
Amended Eff. November 1, 1978; December 1, 1976;
Repealed Eff. December 1, 1984.

15A NCAC 02B .0406 EFFLUENT LIMITS IN EFFLUENT LIMITED SEGMENTS

(a) Municipal Wastewaters and Other Similar Discharges

(1) Applicability. This Regulation is applicable to all municipal wastewater treatment discharges and all discharges consisting primarily of domestic sewage. In addition to the limits contained herein, limits applicable to industrial categories contained in .0406(b) of this Section will be applicable to any municipality having industrial waste discharges from industries in any single category which discharges 10 or more percent of the average daily wastewater flow to the municipal system or where the municipal system and the effluent discharge is significantly impacted.

(2) Effluent Limitations Except for Waste Stabilization Ponds Included in (3) of This Subsection. In mg/l expressed as monthly average and weekly maximum average:

	SECONDARY		"BPWTT"	
Effluent Characteristic	Monthly Avg.	Weekly Avg. Max.	Avg.	Max.

BOD(5)	30 mg/l	45 mg/l	Reserved
TSS	30 mg/l	45 mg/l	Reserved
Fecal Coliform	(Effluent limitations for coliform bacteria and pH shall be imposed only if		Reserved
pH	necessary to maintain compliance with applicable water quality standards.)		Reserved

(3) Effluent limitations for waste stabilization ponds provided that:

(A) Waste stabilization ponds are the sole process used for secondary treatment;

(B) The maximum facility design capacity is two million gallons per day or less; and

(C) Operation and maintenance data indicate that the requirements for TSS of Part (2) of this Subsection cannot be achieved. In mg/l expressed as monthly average and weekly maximum average:

	SECONDARY		"BPWTT"
Effluent Characteristic	Monthly Avg.	Weekly Avg. Max.	Avg. Max.
BOD(5)	30 mg/l	45 mg/l	Reserved
TSS	90 mg/l	135 mg/l	Reserved
Fecal Coliform	(Effluent limitations for coliform bacteria and pH shall be imposed only if		Reserved
pH	necessary to maintain compliance with applicable water quality standards.)		Reserved

(b) Industrial Waste Discharges. Effluent limits for industrial waste discharges are set forth in the Environmental Protection Agency guidelines and standards listed in this Rule which are adopted by reference as amended through June 1, 1984:

40 CFR 129 -- EPA Toxic Pollutant Effluent Standards
40 CFR 401 -- EPA General Provisions for Effluent Guidelines and Standards
40 CFR 405 -- EPA Effluent Guidelines and Standards for Dairy Products
40 CFR 406 -- EPA Effluent Guidelines and Standards for Grain Mills
40 CFR 407 -- EPA Effluent Guidelines and Standards for Canned and Preserved Fruits and Vegetables
40 CFR 408 -- EPA Effluent Guidelines and Standards for Canned and Preserved Seafood
40 CFR 409 -- EPA Effluent Guidelines and Standards for Sugar Processing
40 CFR 410 -- EPA Effluent Guidelines and Standards for Textiles
40 CFR 411 -- EPA Cement Manufacturing Effluent Guidelines and Standards
40 CFR 413 -- EPA Effluent Guidelines and Standards for Electroplating
40 CFR 414 -- EPA Effluent Guidelines and Standards for Organic Chemicals
40 CFR 415 -- EPA Effluent Guidelines and Standards for Inorganic Chemicals
40 CFR 416 -- EPA Effluent Guidelines and Standards for Plastics and Synthetics
40 CFR 417 -- EPA Effluent Guidelines and Standards for Soaps and Detergents
40 CFR 418 -- EPA Effluent Guidelines and Standards for Fertilizer Manufacturing
40 CFR 419 -- EPA Effluent Guidelines and Standards for Petroleum Refining
40 CFR 420 -- EPA Effluent Guidelines and Standards for Iron and Steel Manufacturing
40 CFR 421 -- EPA Effluent Guidelines and Standards for Nonferrous Metals
40 CFR 422 -- EPA Phosphate Manufacturing Effluent Guidelines and Standards

40 CFR 423 -- EPA Effluent Guidelines and Standards for Steam Electric Power Generating
40 CFR 424 -- EPA Effluent Guidelines for Ferroalloy Manufacturing
40 CFR 425 -- EPA Effluent Guidelines and Standards for Leather Tanning and Finishing
40 CFR 426 -- EPA Effluent Guidelines and Standards for Glass Manufacturing
40 CFR 427 -- EPA Effluent Guidelines and Standards for Asbestos Manufacturing
40 CFR 428 -- EPA Effluent Guidelines for Rubber Processing
40 CFR 429 -- EPA Effluent Guidelines and Standards for Timber Products
40 CFR 430 -- EPA Effluent Guidelines and Standards for Pulp, Paper, and Paper Board
40 CFR 431 -- EPA Effluent Guidelines and Standards for Builders Paper and Board Mills
40 CFR 432 -- EPA Effluent Guidelines and Standards for Meat Products
40 CFR 433 -- EPA Effluent Guidelines and Standards for Metal Finishing
40 CFR 434 -- EPA Effluent Guidelines and Standards for Coal Mining
40 CFR 435 -- EPA Effluent Guidelines and Standards for Offshore Oil and Gas Extraction
40 CFR 436 -- EPA Effluent Guidelines and Standards for Mineral Mining and Processing
40 CFR 439 -- EPA Effluent Guidelines and Standards for Pharmaceutical Manufacturing
40 CFR 440 -- EPA Effluent Guidelines and Standards for Ore Mining and Dressing
40 CFR 443 -- EPA Effluent Guidelines and Standards for Paving and Roofing Materials
40 CFR 446 -- EPA Effluent Guidelines and Standards for Paint Formulating
40 CFR 447 -- EPA Effluent Guidelines and Standards for Ink Formulating
40 CFR 454 -- EPA Effluent Guidelines and Standards for Gum and Wood Chemicals Manufacturing
40 CFR 455 -- EPA Effluent Guidelines for Pesticide Chemicals Manufacturing
40 CFR 457 -- EPA Effluent Guidelines and Standards for Explosives Manufacturing
40 CFR 458 -- EPA Effluent Guidelines and Standards for Carbon Black Manufacturing
40 CFR 459 -- EPA Effluent Guidelines and Standards for Photographic Processing
40 CFR 460 -- EPA Effluent Guidelines and Standards for Hospitals
40 CFR 465 -- EPA Effluent Guidelines and Standards for Coil Coating
40 CFR 466 -- EPA Effluent Guidelines and Standards for Porcelain Enameling
40 CFR 467 -- EPA Effluent Guidelines and Standards for Aluminum Forming
40 CFR 468 -- EPA Effluent Guidelines and Standards for Copper Forming
40 CFR 469 -- EPA Effluent Guidelines and Standards for Electrical and Electronic Components

(c) Copies of these Federal Regulations are on file at:

(1) Division of Environmental Management
Department of Natural Resources and Community Development
P.O. Box 27687, Raleigh, N.C. 27611

(2) Asheville Regional Office
Interchange Building, 59 Woodfin Place
Asheville, N.C. 28802

(3) Fayetteville Regional Office
Wachovia Building, Suite 714
Fayetteville, N.C. 28301

(4) Mooresville Regional Office
919 North Main Street
Mooresville, N.C. 28115

(5) Raleigh Regional Office
3800 Barrett Drive
Raleigh, N.C. 27609

(6) Washington Regional Office
1502 North Market Street
Washington, N.C. 27889

(7) Wilmington Regional Office
7225 Wrightsville Avenue
Wilmington, N.C. 28403.

(8) Winston-Salem Regional Office
8003 North Point Boulevard
Winston-Salem, N.C. 27106

(d) In cases where effluent limits established by Paragraph (b) of this Rule are not adequate to control settleable solids, the staff shall establish effluent limits for settleable solids. Such effluent limitations for settleable solids will be applicable only when the projected average solids concentration exceeds 5.0 ml/l and the limitations established shall lie within the range of 0.1 ml/l to 5.0 ml/l. The establishment of such limitations for any discharge shall be approved by the Director of the Division of Environmental Management.
(e) For industrial categories or parts of categories for which effluent limits and guidelines have not been published and adopted, effluent limitations for existing industrial waste discharges, or new industrial waste discharges shall be calculated by the staff using the projected limits of the Environmental Protection Agency, the Environmental Protection Agency development document and other available information in order to achieve the purposes of Article 21. Such limits developed by the staff shall be subject to approval by the Director.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1), (4);*
Eff. February 1, 1976;
Amended Eff. July 1, 1988; December 1, 1984; November 1, 1978; December 1, 1976.

15A NCAC 02B .0407 GUIDANCE FOR DETERMINING A NEW SOURCE

(a) A source should be considered a new source by the Director provided on the date of publication of any applicable new source performance standard there has not been any:

(1) significant site preparation work, such as major clearing or excavation; or
(2) placement, assembly, or installation of unique facilities or equipment at the premises where such facilities or equipment will be used; or
(3) contractual obligation to purchase such unique facilities or equipment; Facilities and equipment shall include only the major items listed below, provided that the value of such items represents a substantial commitment to construct the facility:
    (A) structures, or
    (B) structural materials, or
    (C) machinery, or
    (D) process equipment, or
    (E) construction equipment.
(4) contractual obligation with a firm to design, engineer and erect a completed facility (i.e., a turnkey plant).

(b) A modification to an existing source will be considered a new source if the alteration is of such magnitude to, in effect, create a new facility. In making such a determination, the Director shall find that the permit modification procedures are not appropriate and shall consider, among other relevant factors, whether as a result of the alteration, the source can reasonably achieve the standard of performance. Only those portions of a facility determined to be a new source shall be required to achieve new source performance standards.

History Note: *Authority G.S. 143-215; 143-215.1; 143-215.3(a)(1), (4);*
Eff. December 1, 1976.

SECTION .0500 - SURFACE WATER MONITORING: REPORTING

15A NCAC 02B .0501 PURPOSE

The purpose of this Section is to set forth the requirements of the Environmental Management Commission for monitoring and reporting the quantity and quality of wastewater discharges to, and their effects upon, the water resources of the state.

History Note: *Authority G.S. 143-215.64; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. December 1, 1984.

15A NCAC 02B .0502 SCOPE

This Section shall apply to all persons subject to the provisions of G.S. 143-215.1.

History Note: *Authority G.S. 143-215.64; 143-215.68;*
Eff. February 1, 1976.

15A NCAC 02B .0503 DEFINITIONS

Unless the context otherwise requires, the terms used herein shall be as defined in G.S. 143-213 and as follows:

(1) "Biological monitoring" shall mean the sampling or testing of the biological integrity of surface waters and measurements of impacts including accumulations of pollutants in tissue, toxicity monitoring, and characterization of instream biological populations.

(2) "Classified water pollution control facility" means a treatment works classified by the Water Pollution Control System Operator Certification Commission pursuant to Chapter 90A of the North Carolina General Statutes as class I, class II, class III, or class IV facility, or such other classifications as the Water Pollution Control System Operator Certification Commission may hereafter adopt.

(3) "Commercial laboratory" means any laboratory which analyzes water samples for a fee.

(4) "Composite sample" means: a sample gathered over a 24 hour period by continuous sampling or combining grab samples in such a manner as to result in a total sample which is representative of the wastewater discharge during the sample period. This sample may be obtained by methods given below, however, the Director may designate the most appropriate method, number and size of aliquots necessary and the time interval between grab samples on a case-by-case basis. Samples may be collected manually or automatically.

(a) Continuous - a single, continuous sample collected over a 24 hour period proportional to the rate of flow.

(b) Constant time/variable volume - a series of grab samples collected at equal time intervals over a 24 hour period of discharge and combined proportional to the rate of flow measured at the time of individual sample collection, or

(c) Variable time/constant volume - a series of grab samples of equal volume collected over a 24 hour period with the time intervals between samples determined by a preset number of gallons passing the sampling point. Flow measurement between sample intervals shall be determined by use of a flow recorder and totalizer, and the preset gallon interval between sample collection fixed at no greater than 1/24 of the expected total daily flow at the treatment system, or

(d) Constant time/constant volume - a series of grab samples of equal volume collected over a 24 hour period at a constant time interval. This method may be used in situations where effluent flow rates vary less than 15 percent. The grab samples shall be taken at intervals of no greater than 20 minutes apart during any 24 hour period and must be of equal size and of no less than 100 milliliters. Use of this method requires prior approval by the Director.

(5) "Daily" means every day on which a wastewater discharge occurs except Saturdays, Sundays and legal holidays unless otherwise specified by the Director.

(6) "Design flow" means the average daily volume of wastewater which a water pollution control facility was designed, approved and constructed to treat.

(7) "Design treatment capability" means a water pollution control facility's capacity to achieve a specified degree of reduction in waste constituents at a specified design flow, to meet specified limits or removal efficiencies.

(8) "Director" means the Director of the Division of Environmental Management, Department of Environment, Health, and Natural Resources.

(9) "Division" means the Division of Environmental Management, Department of Environment, Health, and Natural Resources.

(10) "Domestic wastewater" means water-carried human wastes together with all other water-carried wastes normally present in wastewater from non-industrial processes.

(11) "Downstream" means locations in the receiving waters below (downstream of) a point of waste discharge after a reasonable opportunity for dilution and mixture as specified in the Commission's "Rules, Regulations, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina."

(12) "Effluent" means wastewater discharged following all treatment processes from a water pollution control facility or other point source whether treated or untreated.

(13) "Flow" means the total volume of wastewater discharged from an outlet during any given period.

(14) "Grab sample" means an individual sample collected instantaneously. Samples of this type must be representative of the discharge or the receiving waters.

(15) "Industrial establishment" means any industrial, business, commercial or governmental enterprise which produces water carried wastes.

(16) "Influent" means the wastewater entering a water pollution control facility.

(17) "Monitoring" means a program of sample collection, analysis, and observation sufficient to quantify various aspects of waste streams, treatment plant operations and environmental impacts.

(18) "Point source" means any discernible, confined, and discrete conveyance, including, but not specifically limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, or concentrated animal feeding operation from which waste is or may be discharged to the waters of the state.

(19) "Quarterly" means occurring four times during a 12-month period at a frequency of once per each interval of three consecutive months.

(20) "Quarterly Average" means the average of all samples taken over a quarterly period.

(21) "Sample" means a representative portion of the wastewater from water pollution control facilities or of receiving waters.

(22) "Standard Industrial Classification" (SIC) means those numerical designations set forth in "The Standard Industrial Classification Manual," (Superintendent of Documents, U.S. Government Printing Office) classifying industries according to the type of activity (relating to major products manufactured or principle services furnished) in which they are engaged. For the purposes of this Section, each industry or unit of government shall be classified by SIC numbers applicable to each activity carried on by such establishment or unit which results in a discharge of wastewater. In addition, any industrial establishment or unit of government which collects or discharges domestic sewage is hereby assigned SIC number 4952. The Standard Industrial Classification Manual, as used in this Section, is hereby incorporated by reference, including any subsequent amendments and editions. A copy is available for inspection at the central office of the Division of Environmental Management, 512 North Salisbury Street, Raleigh, North Carolina. Copies may be obtained at the GPO Bookstore, Room 100, 275 Peachtree Street NE, or Post Office Box 56445, Atlanta GA 30343 at a cost of twenty-four dollars ($24.00).

(23) "Storet number" means a number which designates a test or measurement according to the analytical procedure used or a method of measurement and units of measurement. Storet is an acronym for the water quality data storage and retrieval computer system of the Environmental Protection Agency.

(24) "Toxic substances" means any substance, or combinations of substances, including disease-causing agents, which, after discharge, and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression of reproduction or growth) or physical deformities in such organisms or their offspring or other adverse health effects.

(25) "Toxicity monitoring" means controlled toxicity testing procedures employed to measure lethality or other harmful effects as measured by either aquatic populations or indicator species used as test organisms from exposure to a specific chemical or mixture of chemicals (as in an effluent) or ambient stream conditions.

(26) "Unit of government" means any incorporated city, town or village, county, sanitary district, metropolitan sewerage district, water or sewer authority, special purpose district, other municipality, or any agency, board, commission, department or political subdivision or public corporation of the state, now or hereafter created or established, empowered to provide wastewater collection systems or wastewater treatment works.

(27) "Upstream" means locations in the receiving waters near but above (upstream of) a point of wastewater discharge and unaffected by the discharge.

(28) "Water pollution control facilities" or "facility" means "treatment works" as defined in G.S. 143-213.

History Note: *Authority G.S. 143-213; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984.

15A NCAC 02B .0504 CLASSIFICATION OF WASTE SOURCES

(a) All persons subject to the requirements of these Rules shall determine the standard industrial classification (SIC) number for each type of activity (required to be reported under Rule .0506 of this Section) in which they are engaged by reference to the Standard Industrial Classification Manual.
(b) Environmental Management Commission hereby assigns SIC number 4952 to every industrial establishment or unit of government which collects or discharges domestic wastewater, whether from on-premises bathrooms, restrooms, kitchens, dining rooms, water pollution control facilities, or from any other source.
(c) The owner or person in responsible charge of every water pollution control facility, which receives a wastewater influent from more than one source, shall determine and report to the Department of Environment, Health, and Natural Resources the name and standard industrial classification number(s) for each applicable activity(ies) of every industrial establishment contributing wastes containing toxic substances, in toxic quantities, and also every industrial establishment contributing an average daily wastewater influent of one percent or more of the design flow of the facility or in excess of 100,000 gallons per day, whichever is less, and shall report such other information as is required by Rule .0505 of this Section; provided; however, that it is not required that the name and SIC number of any source contributing domestic sewage influent only be reported hereunder.
(d) The average daily influent volume contributed by any one source may be computed by dividing the total volume of wastewater discharged by the source during the reporting year by the total number of days that the source operated during the reporting year.

History Note: *Authority G.S. 143-215.64; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0505 MONITORING REQUIREMENTS

(a) General. Every person subject to this Section shall be required to establish, operate and maintain a monitoring program consistent with their National Pollutant Discharge Elimination System (NPDES) Permit or as required by the Director.
(b) Wastewater and Stream Flow Measurement.
- (1) A device or method, approved by the Director for determining the rate of flow of all discharges of wastewater whether treated or untreated shall be provided at those point sources of which monthly reports of monitoring tests and measurements are required unless specifically excepted by the Director as not significant. All water pollution control facilities shall install, operate, and maintain continuous flow measuring with recording devices or totalizing devices, if approved by the Director, or shall employ other flow measuring or flow control methods approved by the Director and shall submit monthly reports of such data as required in Rule .0506 of this Section. The permittee shall install appropriate flow measurement devices consistent with approved engineering and scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. Devices selected shall be capable of measuring flows with a maximum deviation of less than 10 percent from true discharge volumes. Flow measurement devices shall be accurately calibrated at a minimum of once per year and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. The flow measurement device and location shall be approved by the Director prior to installation. Records of flow measurement device calibration shall be kept on file by the permittee for a period of at least three years. At a minimum, data to be included in this documentation shall be:
  - (A) Date of flow measurement device calibration
  - (B) Name of person performing calibration.
- (2) A reading of the U.S. Geological Survey stream flow staff gauge or reference point shall be made at the time of stream sampling in those instances so determined the Director.

(c) Sampling.
- (1) Frequency and Location. Except as otherwise provided herein, all industrial establishments and units of government shall take influent, effluent and stream samples at such locations and with such frequency as shall be necessary to conduct the tests and analyses required by Rule .0508 of this Section.
- (2) Establishment of Sampling Points:
  - (A) Sampling points as required in Rule .0508 of this Section shall be established for collecting influent and effluent samples for each facility.
  - (B) Sampling points shall be established in the receiving waters at one or more upstream locations and at one or more downstream locations. These locations shall be specified by the Director.
- (3) Collection of Samples:
  - (A) Samples collected in receiving waters shall be grab samples.

(B) Samples of the influent and effluent of the water pollution control facility or other point source shall be composite samples, except as provided in Rule .0505 (c)(3)(C) of this Section, or for facilities with design flows of 30,000 gallons per day or less unless required by the Director. The Director may specify the methods of sample collection as to type of sample and type of composite sampling required.

(C) The following influent and effluent tests shall be made on grab samples and shall not be made on composite samples:

(i) dissolved oxygen,
(ii) temperature,
(iii) settleable matter,
(iv) turbidity,
(v) pH,
(vi) residual chlorine,
(vii) coliform bacteria (fecal or total),
(viii) cyanide,
(ix) oil and grease,
(x) sulfides,
(xi) phenols,
(xii) volatile organics.

(4) Stream sampling may be discontinued at such times as flow conditions in the receiving waters or extreme weather conditions will result in a substantial risk of injury or death to persons collecting samples. In such cases, on each day that sampling is discontinued, written justification for the discontinuance shall be specified in the monitoring report for the month in which the event occurred. This provision shall be strictly construed and may not be utilized to avoid the requirements of this Section when performance of these requirements is attainable. When there is a discontinuance pursuant to this provision, stream sampling shall be resumed at the first opportunity after the risk period has ceased.

(d) Biological and Toxicity Monitoring. Biological and Toxicity monitoring may be required when, in the opinion of the Director, such monitoring is necessary to establish whether the designated best use of the waters as determined by the Environmental Management Commission, is being or may be impaired or when toxic substances are known or suspected to be present in the facility's discharge.

(e) Tests and Analyses.

(1) If a water pollution control facility receives waste influent from two or more sources, every test required by Rule .0508 of this Section for the standard industrial classification number applicable to the sources shall be performed one time, and it shall not be necessary to repeat such tests for each source; however, the tests shall be performed at the intervals specified by Rule .0508 of this Section for the applicable industrial classification requiring the most frequent test interval.

(2) If analyses of samples of any effluent or any receiving water (collected by the state or a public agency) indicate a violation of effluent limitations, or water quality standards or indicate exceedances of stream action levels or that a violation of water quality standards or exceedances of stream action levels may result under any projected conditions including minimum stream flow and temperature extremes, the Director may require the person responsible for the violation or potential violation to monitor the pollutants or parameters at such points and with such frequency as he determines appropriate. If the source of the pollutant is unknown, the Director may require monitoring for specific pollutants from any suspected discharger.

(3) If the wastewaters discharged by any water pollution control facility violate any effluent limitations or water quality standards or exceeds any stream action levels or contribute to the violation of water quality standards or exceedance of stream action levels established by the Environmental Management Commission the facility shall perform and report such additional tests and measurements at such frequencies and for such periods of time as the Director may require.

(4) Approved Methods of Analysis. The methods used in collection, preservation and analysis of samples shall conform to the guidelines of the Environmental Protection Agency codified as 40 CFR Part 136, which is hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from the New Orders, Superintendent of Documents, PO Box 371954, Pittsburgh, PA 15250-7954 at a cost of three hundred forty dollars ($340.00) per edition. The single volume containing 40 CFR Part 136 may be obtained at a cost of thirty dollars ($30.00). Other analytical procedures shall conform to those found in either the most recent approved edition of "Standard Methods for the Examination of Water and Wastewater",

(published jointly by the American Public Health Association, the American Water Works Association, and the Water Environment Federation), or "Methods for Chemical Analysis of Waters and Wastes", 1983, or subsequent editions or other methods as approved by the Director. Standard Methods for the Examination of Water and Wastewater is hereby incorporated by reference including any subsequent approved amendments and approved editions. Copies may be obtained from the American Water Works Association, 6666 West Quincy Avenue, Denver CO 82535 at a cost of one hundred sixty dollars ($160.00) per edition. Methods for Chemical Analysis of Waters and Wastes is hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from the NTIS, 5285 Port Royal Road, Springfield, VA 22161 at a cost of fifty dollars ($50.00) per edition. All material incorporated by reference in this Rule is available for inspection at the Central office of the Division of Environmental Management, 512 North Salisbury Street, Raleigh, North Carolina 27626-0535. All test procedures must produce detection and reporting levels that are below the permit discharge requirements and all data generated must be reported to the approved detection level or lower reporting level of the procedure. If no approved methods are determined capable of achieving detection and reporting levels below permit discharge requirements, then the approved method with the lowest detection and reporting level must be used. Biological testing shall be performed in accordance with 15A NCAC 2B .0103(b).

(5) Approval of Laboratories. Analytical determinations made pursuant to the monitoring and reporting requirements of this Section shall be made in adequately equipped laboratories staffed by person(s) competent to perform tests. Only monitoring programs which provide for the making of analytical determinations by qualified employees of the owner or by a laboratory certified by the Division under 15A NCAC 2H .0800 or 15A NCAC 2H .1100 will be considered adequate.

(f) Process Control Monitoring Testing: The Director may require, on a case-by-case basis, process control monitoring testing suitable for the size and classification of the facility.

History Note: *Authority G.S. 143-215.64; 143-215.66; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0506 REPORTING REQUIREMENTS

(a) General:

(1) Every person subject to this Section shall file certified monitoring reports setting forth the results of tests and measurements conducted pursuant to NPDES permit monitoring requirements.

(A) Monthly monitoring reports shall be filed no later than 30 calendar days after the end of the reporting period for which the report is made.

(B) Reports filed pursuant to the requirements of Subparagraph (a)(1) of this Rule shall be of forms furnished or approved by the Director and shall be submitted in duplicate to:

ATTN: CENTRAL FILES
DIVISION OF ENVIRONMENTAL MANAGEMENT
POST OFFICE BOX 29535
RALEIGH, NORTH CAROLINA 27626-0535.

(C) A copy of all reports submitted to the Director pursuant to this Section shall be retained by the owner of each water pollution control facility for a period of at least three years from the date of submission and be readily available to the Division for inspection.

(D) In order to document information contained in reports submitted to the Director pursuant to this Section, the owner of each pollution control facility is required to retain or have readily available for inspection by the Division, the following items for a period of at least three years from report submission:

(i) the original laboratory reports from any certified laboratory utilized for sample analysis. Such reports must be signed by the laboratory supervisor, and must indicate the date and time of sample collection and analysis, and the analysts' name;

(ii) bench notes and data logs for sample analyses performed by the pollution control facility staff or operator in responsible charge, whether or not the facility has a certified lab; and

(iii) copies of all process control testing.

(E) In situations where no discharge has occurred from the facility during the report period, the permittee is required to submit a monthly monitoring report giving all required information and indicating "NO FLOW" unless the Director agrees to waive the reporting requirement during extended conditions of no discharge.

(2) Every person subject to this Section shall report by telephone to either the central office or appropriate regional office of the Division as soon as possible but no later than 24 hours after occurrence or on the next working day (however, if the occurrence is one which may endanger the public health, or fish or wildlife, and contact with the central office or the appropriate regional office cannot be made, such person shall report as soon as possible to the State Highway Patrol Warning Point in state 1-800-662-7956 or out of state 919-733-3861) following the occurrence or first knowledge of the occurrence of any of the following:

(A) Any failure of a collection system, pumping station or treatment facility resulting in a by-pass without treatment of all or any portion of the wastewater.

(B) Any occurrence at the water pollution control facility which results in the discharge of significant amounts of wastes which are abnormal in quantity or characteristic, such as the dumping of the contents of a sludge digester, the known passage of a hazardous substance through the facility, or any other unusual circumstances.

(C) Any process unit failure, due to known or unknown reasons, that renders the facility incapable of adequate wastewater treatment, such as mechanical or electrical failures of pumps, aerators, compressors, etc.

(3) Persons reporting such occurrences by telephone shall also provide a written report to the Division in letter form setting out the information required in Subparagraph (a)(4) of this Rule and pertinent information pertaining to the occurrence. This report must be received by the Division within five days following first knowledge of the occurrence.

(4) All reports required to be filed by this Section shall contain the following information in addition to such other information as is required for the particular report:

(A) name of facility,

(B) water pollution control facility location,

(C) the class assigned to the water pollution control facility,

(D) the water pollution control facility permit number assigned by the Department of Environment, Health, and Natural Resources to the permit or other approval document issued by the Environmental Management Commission under which the discharge is made,

(E) contact name and telephone number and mailing address,

(F) estimated nature and extent of environmental damage caused by the incident.

(5) Any person desiring confidentiality for any influent information submitted shall specify the influent information for which confidentiality is sought and shall justify such request to the Department of Environment, Health, and Natural Resources, and if such request is approved by the Director shall by an appropriate stamp, indicate the location of such information on each report filed thereafter.

(b) Monthly Monitoring Reports:

(1) Every person operating a monitoring system required by this Section shall file a monitoring report once each month which includes the data for the samples collected during the month. This report shall be filed no later than 30 calendar days after the end of the reporting period for which the report is made.

(2) Monthly monitoring reports shall be reviewed, compliance status determined, certified by signature, and submitted by the following:

(A) For a corporation: by a responsible corporate officer. For the purpose of the Section, a responsible corporate officer means:

(i) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or

(ii) the manager of one or more manufacturing production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000) (in second quarter 1980 dollars), if authority to sign documents had been assigned or delegated to the manager in accordance with corporate procedures.

(B) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(C) For a municipality, State, Federal, County, or other public agency: by either a principal executive officer or ranking elected official;

(D) Duly authorized representative of the person described in Paragraphs (b)(2)(A), (B) and (C). A person is a duly authorized representative only if:

(i) The authorization is made in writing by a person described in Paragraphs (b)(2)(A), (B) and (C);

(ii) The authorization specified either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or well field, superintendent, a position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(iii) The written authorization is submitted to the Permit Issuing Authority. Permittees authorizing another individual to sign as representative in no way relinquishes any responsibility for the permit or his responsibility to remain familiar with the permit conditions, limits, including any modifications, and for the compliance data reports for the permit.

(E) Permittee signing the report certifies to the following statement: " I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations." The monthly report shall also be certified by the operator in responsible charge of a classified treatment facility or by the manager of an industrial establishment which has a point source of waste discharge and which does not have a classified water pollution control facility.

(3) In addition to the information required on all reports [see Subparagraph (a)(4) of this Rule] the following information shall be submitted in monthly monitoring reports:

(A) name of person or group collecting sample or making observation;

(B) name of person or group that analyzed sample;

(C) name of operator in responsible charge of the facility and the grade certificate held;

(D) sampling point for each sample;

(E) date and time (on 2400 hour clock basis) at which each grab sample was collected;

(F) composite samples:

(i) date on which collection of composite samples is commenced,

(ii) time of starting and ending of composite sample period on 2400 hour clock basis;

(G) wastewater flow in million gallons per day (MGD);

(H) Results of analyses (reported to the designated number of figures with a properly placed decimal point as indicated on each report sheet) together with the proper storet number (to be furnished by the Division) for the analytical procedure used and the reporting units shall be those specified by the NPDES permit or current enforcement document, unless modified by the Director;

(I) Only numeric values will be accepted in reporting results of fecal coliform testing. The reporting of "too numerous to count" (TNTC) as a value will constitute a violation;

(J) The results of all tests on the characteristics of the effluent, including but not limited to NPDES Permit Monitoring Requirements, shall be reported on monthly report forms;

(K) The monthly average of analysis for each parameter and the maximum and minimum values for the month shall be reported;

(L) Certification by the Operator in Responsible Charge (ORC) as to the accuracy and completeness of the report and that he/she has performed and documented the required visitation and process control.

(c) Additional Reporting/Monitoring Requirements:

(1) When a facility is operated on an independent contract basis, the operator in responsible charge shall notify the owner of the facility in writing of any existing or anticipated conditions at the facility which may interfere with its proper operation and which need corrective action by the owner. The notice shall include recommendations for corrective action.

(2) Two copies of the notice to the owner shall be sent to the Division as an attachment to the next monthly monitoring report.

(3) A log demonstrating visitation at the proper frequency for the assigned classification, including dates and times of visits, and documentation of proper process control monitoring shall be maintained and shall be submitted to the Division upon request. Copies of all information must be readily available for inspection for a period of three years.

(d) All information submitted will be classified as public information unless determined otherwise by the Director.

History Note: *Authority G.S. 143-215.1(b); 143-215.64; 143-215.65; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. August 2, 1993; April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0507 IMPLEMENTATION

History Note: *Authority G.S. 143-215.68; 143-215.64 to 143-215.66;*
Eff. February 1, 1976;
Amended Eff. November 1, 1978;
Repealed Eff. December 1, 1984.

15A NCAC 02B .0508 TESTS AND MEASUREMENTS APPLICABLE TO SICS

(a) Determination of Type and Frequency of Tests and Measurements:

(1) Introduction. The tables set forth in this Rule are designed to indicate, for any particular water pollution control facility or point source, the minimum standard tests and measurements which are to be performed, the minimum frequency with which the tests and measurements are to be conducted, and the location and minimum number of sampling points that are required.

(2) Determination of Facility Class and SIC Numbers. Before these tables may be applied, the standard industrial classification(s) of the activities discharging to the water pollution control facility must be determined from The Standard Industrial Classification Manual. The classification of the facility as determined by the Water Pollution Control System Operators Certification Commission, must also be known.

(b) Modification of Test(s) or Measurement(s) Requirements:

(1) If it is demonstrated to the satisfaction of the Director that any of the tests and measurements, sampling points, or frequency of sampling requirements, as required in this Rule for a particular SIC group, are not applicable to the discharge of a particular water pollution control facility, or if it can be demonstrated that the objectives of this Section can be achieved by other acceptable means, then such requirements may be waived or modified to the extent that the Director determines to be appropriate.

(2) In addition to the tests and measurements as listed in this Rule applicable to each of the SIC groups, persons subject to this Section may be required to perform such additional tests and measurements at such sampling points and with such frequency as are determined by the Director to be necessary to adequately monitor constituents of the waste discharge and their effect upon the receiving waters. This monitoring may include, but not be limited to weekends and holidays as deemed necessary by the Director to ensure representative sampling and proper operation and maintenance of any facility.

(c) Unclassified Activities:

(1) Any person owning or operating a water pollution control facility who determines that a major SIC group(s) is not listed in this Rule for an activity subject to this Section shall so notify the Division.

(2) The Director shall prescribe the number and location of sampling points and the frequency with which tests and measurements must be made for such pollutant or pollutant effects as it shall deem necessary to properly monitor the quantity or quality of waste discharges resulting from any activity subject to this Section which is not included in the major SIC groups set forth in this Rule and to properly monitor effects of the discharges upon the waters of this state.

(d) Index of Major Standard Industrial Groups:

SIC Number	Major Products or Services

1400-1499	Mining
2000-2199	Food, Beverage and Tobacco Processing
2200-2299	Textile Processing
2400-2599	Lumber and Wood Products Except Wet Decking
2600-2699	Paper and Allied Products
2800-2899	Chemical and Allied Products
2900-2999	Petroleum Refining and Related Industries
3100-3199	Leather and Leather Products
3400-3699	Fabricated Metal Products Except Ordnance, Machinery and Transportation Equipment Machinery Electrical Machinery, Equipment and Supplies
4900-4939	Electric, and Gas Services
4941	Water Supply
4952	Wastewater and all facilities discharging primarily domestic wastewater
7000-8999	Services

Abbreviations for sampling locations and frequencies to be used with SIC monitoring requirements:

"I" means influent "E" means effluent "U" means upstream "D" means downstream
"2/month" means samples are collected twice per month with a required 10 day interval between the collection of the samples
"3/week" means samples are collected three times per week on three separate days

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MINING
MINIMUM REQUIREMENTS FOR SIC 1400-1499

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Turbidity	E	Monthly	Monthly	Monthly	Monthly
2.	Settleable Matter	E	Monthly	Monthly	Monthly	Monthly
3.	TSS	E	Monthly	Monthly	Monthly	Monthly
4.	pH	E	Monthly	Monthly	Monthly	Monthly
5.	Toxics and Toxicity		**	**	**	**

FOOD AND BEVERAGE PROCESSING AND TOBACCO PROCESSING
MINIMUM REQUIREMENTS FOR SIC 2000-2199
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	Weekly
6.	Total Nitrogen	E	*	*	*	*
7.	Total Phosphorus	E	*	*	*	*
8.	Toxics and Toxicity		**	**	**	**
	WATER QUALITY LIMITED					
1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily

2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Ammonia Nitrogen	E	2/month	Weekly	3/week	Daily
9.	Total Nitrogen	E	*	*	*	*
10.	Total Phosphorus	E	*	*	*	*
11.	Toxics and Toxicity		**	**	**	**
12.	Conductivity	E	Weekly	Weekly	3/week	Daily
13.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

TEXTILE PROCESSING
MINIMUM REQUIREMENTS FOR SIC 2200-2299
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	COD	E	2/month	Weekly	3/week	Daily
5.	TSS	E	2/month	Weekly	3/week	Daily
6.	Total Nitrogen	E	*	*	*	*
7.	Total Phosphorus	E	*	*	*	*
8.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	COD	E	2/month	Weekly	Weekly	Weekly
8.	TSS	E	2/month	Weekly	3/week	Daily
9.	Total Nitrogen	E	*	*	*	*
10.	Total Phosphorus	E	*	*	*	*
11.	Toxics and Toxicity		**	**	**	**
12.	Conductivity	E	Weekly	Weekly	3/week	Daily
13.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

LUMBER AND WOOD PRODUCTS (EXCLUDING WET DECKING)
MINIMUM REQUIREMENTS FOR SIC 2400-2599

EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	COD	E	Monthly	2/month	Weekly	3/week
5.	Total Phenols	E	2/month	Weekly	3/week	Daily
6.	TSS	E	2/month	Weekly	3/week	Daily
7.	Total Nitrogen	E	*	*	*	*
8.	Total Phosphorus	E	*	*	*	*
9.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, 0C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, 0C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 200C	E	2/month	Weekly	3/week	Daily
7.	COD	E	2/month	Weekly	3/week	Daily
8.	Total Phenols	E	2/month	Weekly	3/week	Daily
9.	TSS	E	2/month	Weekly	3/week	Daily
10.	Total Nitrogen	E	*	*	*	*
11.	Total Phosphorus	E	*	*	*	*
12.	Toxics and Toxicity		**	**	**	**
13.	Conductivity	E	Weekly	Weekly	3/week	Daily
14.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

PAPER AND ALLIED PRODUCTS
MINIMUM REQUIREMENTS FOR SIC 2600-2699
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Total Nitrogen	E	*	*	*	*
6.	Total Phosphorus	E	*	*	*	*
7.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily

4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Total Nitrogen	E	*	*	*	*
9.	Total Phosphorus	E	*	*	*	*
10.	Toxics and Toxicity		**	**	**	**
11.	Conductivity	E	Weekly	Weekly	3/week	Daily
12.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

CHEMICAL AND ALLIED PRODUCTS
MINIMUM REQUIREMENTS FOR SIC 2800-2899
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Total Nitrogen	E	*	*	*	*
6.	Total Phosphorus	E	*	*	*	*
7.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Total Nitrogen	E	*	*	*	*
9.	Total Phosphorus	E	*	*	*	*
10.	Toxics and Toxicity		**	**	**	**
11.	Conductivity	E	Weekly	Weekly	3/week	Daily
12.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

PETROLEUM REFINING AND RELATED INDUSTRIES
MINIMUM REQUIREMENTS FOR SIC 2900-2999
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily

4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Total Phenols	E	2/month	Weekly	3/week	Daily
6.	Oil and Grease	E	2/month	Weekly	3/week	Daily
7.	Total Nitrogen	E	*	*	*	*
8.	Total Phosphorus	E	*	*	*	*
9.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Total Phenols	E	2/month	Weekly	3/week	Daily
9.	Oil and Grease	E	2/month	Weekly	3/week	Daily
10.	Total Nitrogen	E	*	*	*	*
11.	Total Phosphorus	E	*	*	*	*
12.	Toxics and Toxicity		**	**	**	**
13.	Conductivity	E	Weekly	Weekly	3/week	Daily
14.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

LEATHER AND LEATHER PRODUCTS
MINIMUM REQUIREMENTS FOR SIC 3100-3199
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	COD	E	2/month	Weekly	Weekly	Daily
6.	Ammonia Nitrogen	E	Monthly	Weekly	Weekly	Weekly
7.	Oil and Grease	E	2/month	Weekly	3/week	Daily
8.	Turbidity	E	Weekly	3/week	Daily	Daily
9.	Total Nitrogen	E	*	*	*	*
10.	Total Phosphorus	E	*	*	*	*
11.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily

8.	COD	E	2/month	Weekly	3/week	Daily
9.	Ammonia Nitrogen	E	2/month	Weekly	3/week	Daily
10.	Oil and Grease	E	2/month	Weekly	3/week	Daily
11.	Turbidity	E	Weekly	Weekly	3/week	Daily
12.	Total Nitrogen	E	*	*	*	*
13.	Total Phosphorus	E	*	*	*	*
14.	Toxics and Toxicity		**	**	**	**
15.	Conductivity	E	Weekly	Weekly	3/week	Daily
16.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

FABRICATED METAL PRODUCTS EXCEPT ORDINANCE:MACHINERY AND TRANSPORTATION EQUIPMENT MACHINERYELECTRICAL MACHINERY, EQUIPMENT AND SUPPLIES

MINIMUM REQUIREMENTS FOR SIC 3400-3699

EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	Oil and Grease	E	2/month	Weekly	3/week	Daily
4.	Total Nitrogen	E	*	*	*	*
5.	Total Phosphorus	E	*	*	*	*
6.	Toxics and Toxicity		**	**	**	**
7.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	pH	E	Weekly	Weekly	3/week	Daily
3.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
4.	Oil and Grease	E	2/month	Weekly	3/week	Daily
5.	Total Nitrogen	E	*	*	*	*
6.	Total Phosphorus	E	*	*	*	*
7.	Toxics and Toxicity		**	**	**	**

ELECTRICAL AND GAS SERVICES

MINIMUM REQUIREMENTS FOR SIC 4900-4939

EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	Weekly	Weekly
2.	Temperature, °C	E	Weekly	Weekly	Weekly	Weekly
3.	Total Nitrogen	E	*	*	*	*
4.	Total Phosphorus	E	*	*	*	*
5.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	Weekly	Weekly
2.	pH	E	Weekly	Weekly	Weekly	Weekly
3.	Temperature, °C	E	Weekly	Weekly	Weekly	Weekly
4.	Total Nitrogen	E	*	*	*	*
5.	Total Phosphorus	E	*	*	*	*
6.	Toxics and Toxicity		**	**	**	**

Note: The following monitoring for steam electric generating establishments discharging once through cooling water or cooling tower blowdown shall be required whether or not the discharge is from a classified facility.

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Temperature, °C	E	Cont.	Cont.	Cont.	Cont.
2.	Temperature, °C	U, D	3/week+	3/week+	3/week+	3/week+
3.	Flow		Continuous during discharge	Continuous during discharge	Continuous during discharge	Continuous during discharge

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WATER SUPPLY PLANTS
MINIMUM REQUIREMENTS FOR SIC 4941
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	Settleable Solids	E	Weekly	Weekly	Weekly	Weekly
2.	TSS	E	2/month	2/month	2/month	2/month
3.	Turbidity	E	Weekly	Weekly	Weekly	Weekly
4.	pH	E	Weekly	Weekly	Weekly	Weekly
5.	Chloride	E	Weekly	Weekly	Weekly	Weekly

DOMESTIC WASTEWATER AND OTHER FACILITIES DISCHARGING PRIMARILY DOMESTIC
MINIMUM REQUIREMENTS FOR SIC 4952
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	2/month	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	I,E	2/month	Weekly	3/week	Daily
4.	TSS	I,E	2/month	Weekly	3/week	Daily
5.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	3/week
6.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
7.	Total Nitrogen	E	*	*	*	*
8.	Total Phosphorus	E	*	*	*	*
9.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	2/month	Weekly	3/week	Daily
4.	Temperature, °C	E	Daily	Daily	Daily	Daily
5.	Temperature, °5	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E,I	2/month	Weekly	3/week	Daily
7.	TSS	E,I	2/month	Weekly	3/week	Daily
8.	Ammonia Nitrogen	E	2/month	Weekly	3/week	Daily
9.	Residual Chlorine	E	2/week	2/week	3/week	Daily
10.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
11.	Fecal Coliform	U,D	2/month	Weekly	3/week+	3/week+
12.	Conductivity	E	Weekly	Weekly	3/week	Daily
13.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+
14.	Total Nitrogen	E	*	*	*	*
15.	Total Phosphorus	E	*	*	*	*
16.	Toxics and Toxicity		**	**	**	**

SERVICES
MINIMUM REQUIREMENTS FOR SIC 7000-8999
EFFLUENT LIMITED

	REQUIRED TEST	LOCATION	FREQUENCY			
			CLASS I	CLASS II	CLASS III	CLASS IV
1.	pH	E	Weekly	Weekly	3/week	Daily
2.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
3.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
4.	TSS	E	2/month	Weekly	3/week	Daily
5.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	3/week
6.	Detergents (MBAS)	E	2/month	Weekly	3/week	Daily
7.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
8.	Total Nitrogen	E	*	*	*	*
9.	Total Phosphorus	E	Monthly	2/month	Weekly	3/week
10.	Toxics and Toxicity		**	**	**	**

WATER QUALITY LIMITED

1.	Dissolved Oxygen	E	Weekly	Weekly	3/week	Daily
2.	Dissolved Oxygen	U,D	Weekly	Weekly	3/week+	3/week+
3.	pH	E	Weekly	Weekly	3/week	Daily
4.	Temperature, °C	E	Weekly	Weekly	3/week	Daily
5.	Temperature, °C	U,D	Weekly	Weekly	3/week+	3/week+
6.	BOD, 5-day, 20°C	E	2/month	Weekly	3/week	Daily
7.	TSS	E	2/month	Weekly	3/week	Daily
8.	Ammonia Nitrogen	E	Monthly	2/month	Weekly	3/week
9.	Detergents (MBAS)	E	2/month	Weekly	3/week	Daily
10.	Fecal Coliform	E	2/month	Weekly	3/week	Daily
11.	Total Nitrogen	E	*	*	*	*
12.	Total Phosphorus	E	*	*	*	*
13.	Toxics and Toxicity		**	**	**	**

14.	Conductivity	E	Weekly	Weekly	3/week	Daily
15.	Conductivity	U,D	Weekly	Weekly	3/week+	3/week+

+ Upstream and Downstream monitoring in water quality limited waters is to be conducted three times per week during June, July, August, and September, and once per week during the rest of the year.

* Total Nitrogen and Phosphorus Monitoring

(1) Monitoring Requirements
  (A) All facilities equal to or greater than 50,000 gpd, shall monitor for total N and P.
  (B) Facilities less than 50,000 gpd shall monitor for total N and P when discharging into nutrient sensitive waters as designated by the Division.

(2) Monitoring frequency for total N and P is based on river subbasins in two separate areas of the state as follows:
  (A) Western area includes the French Broad, Broad, Savannah, New, Watauga, Little Tennessee, and Hiwassee:

	Facility Design Capacity:	Frequency
(i)	50,000 gpd or higher	Semi-annually
(ii)	1,000,000 gpd or higher	Quarterly.

  (B) Piedmont and Eastern area includes the Catawba, Lumber, Yadkin, Cape Fear, Chowan, Neuse, Pasquotank, Roanoke, Tar-Pamlico, and White Oak:

	Facility Design Capacity	Frequency
(i)	50,000 gpd or higher	Quarterly
(ii)	1,000,000 gpd or higher	Monthly.

(3) Definition for Total Nitrogen and Total Phosphorus:
  (A) Total Nitrogen shall be the sum of total kjeldahl nitrogen, nitrate nitrogen, and nitrite nitrogen expressed as "N" in milligrams per liter (mg/l).
  (B) Total Phosphorus shall include all orthophosphates and condensed phosphates, both dissolved and particulate, organic and inorganic, expressed as "P" in milligrams per liter (mg/l).

** Specific test type, conditions, and limitations will be defined by permit. Toxicity limits will be applied to all major discharges and all discharges of complex wastewater. Toxicity limitations and monitoring requirements may be applied to permits for other discharges when, in the opinion of the Director, such discharge may impair the best use of the receiving water by the discharge of toxic substances in toxic amounts.
Specific frequency will be defined by individual permit conditions. For most facilities with continuous and regularly occurring discharges, frequency will be defined as a minimum of quarterly.

History Note: *Authority G.S. 143-215.65; 143-215.66; 143-215.68;*
Eff. February 1, 1976;
Amended Eff. April 1, 1993; December 1, 1984; November 1, 1978.

15A NCAC 02B .0509 PENALTIES
15A NCAC 02B .0510 SEVERABILITY

History Note: *Authority G.S. 143-215.68; 143-215.69;*
Eff. February 1, 1976;
Repealed Eff. December 1, 1984.